Nortel Networks Symposium Call Center Server

Software Installation and Maintenance Guide

Product release 4.0 Standard 1.0 November 2000

NORTEL NETWORKS™

P0918383

Nortel Networks Symposium Call Center Server

Software Installation and Maintenance Guide

Product release:	4.0
Document release:	Standard 1.0
Date:	November 2000

Copyright © 2000 Nortel Networks, All Rights Reserved

Printed in the United States of America

Information is subject to change without notice. Nortel Networks reserves the right to make changes in design or components as progress in engineering and manufacturing may warrant.

The process of transmitting data and call messaging between the Meridian 1 and Symposium Call Center Server is proprietary to Nortel Networks. Any other use of the data and the transmission process is a violation of the user license unless specifically authorized in writing by Nortel Networks prior to such use. Violations of the license by alternative usage of any portion of this process or the related hardware constitutes grounds for an immediate termination of the license and Nortel Networks reserves the right to seek all allowable remedies for such breach.

*Nortel Networks, the Nortel Networks logo, the Globemark, and Unified Networks, DMS, IVR, Meridian 1, Meridian Mail, MSL-100, and Symposium are trademarks of Nortel Networks.

MICROSOFT, MS-DOS, POWERPOINT, WINDOWS, and WINDOWS NT are trademarks of Microsoft Corporation.
CRYSTAL REPORTS is a trademark of Seagate Software, Inc.
PCANYWHERE is a trademark of Symantec Corporation.
SYBASE is a trademark of Sybase Inc.
TANDBERG is a trademark of Tandberg A/S.

Publication history

November 2000

This document is the Standard 1.0 version of the *Nortel Networks Symposium Call Center Server Software Installation and Maintenance Guide* for Release 4.0.

Contents

1 Getting started 1

Overview. 2
About Symposium Call Center Server 4
Related documents 6

Part 1 Installation 9

2 Installing the server software 11

Overview. 12

Section A: Checklists 15

Customer-supplied equipment and data 16
Server installation software (for MAS platform only) 18
Server maintenance and diagnostics tools 19
Installation steps checklist 20

Section B: Configuring Windows NT 4.0 server 23

Overview. 24
Checklist for configuring Windows NT 25
Preparing for installation 26
Logging on to Windows NT as Administrator 28
Changing the Administrator password 29
Configuring and verifying Windows NT settings. 32
Configuring TCP/IP for ELAN, CLAN, and Remote Access Service 45
Configuring the modem for Remote Access Service 57
Formatting optional drives (PVI platforms only) 63
Updating the emergency repair disk 65
Testing the network connection 67
Restarting the server 69

Section C: Installing the server software 71

Checklist for installing the server software 72
Preparing for installation 73
Installing the server software 75
Changing the NGenDist and NGenDesign passwords 90

Post-installation tasks 93

3 Installing and configuring pcAnywhere 95

Overview. 96
Installing pcAnywhere version 9.2 97
Configuring pcAnywhere 100
Changing pcAnywhere caller passwords 109
Establishing a pcAnywhere connection using dial-up 111
Uninstalling pcAnywhere 9.2 113

4 Installing and uninstalling PEPs 115

Overview. 116

Section A: Installing/uninstalling server PEPs and Service Update packs 119

Installing PEPs or Service Update packs on the server 120
Uninstalling PEPs or Service Update packs from the server 122

Section B: Installing/uninstalling client PEPs and Service Update packs 123

Installing PEPs and Service Update packs on the client. 124
Uninstalling a PEP or Service Update pack from the client 128

5 Installing the client software 131

Checklist for installing Symposium Call Center Server client software . . . 132
Customer-supplied equipment and data checklist 133
Installation software checklist 135
Limitations 136
Uninstalling the Software Development Kit. 138
Checking the temp directory size 140
Installing the client from the distribution CD. 142
Installing the client over the network 154
Adding an SMI system 159
Testing the client-server connection. 162
Installing the Software Development Kit 163

6 Converting, upgrading, reinstalling, and uninstalling server software 167
Converting from Release 1.5 to Release 4.0. 168
Performing server software conversions from Release 3.0 to Release 4.0. . 211
Reinstalling server software 231
Uninstalling server software 242

7 Converting, upgrading, reinstalling, and uninstalling client software 247
Reinstalling NCC reports 248
Removing NCC reports 254
Converting the client from a previous release to Release 4.0. 259
Uninstalling the Release 4.0 client software. 271

Part 2 Maintenance 275

8 Managing the server 277
Accessing Windows NT Administrative Tools 278
Shutting down or restarting the server 279
Managing the date and time 281

9 Managing security 283
Password guidelines 284
Changing Nortel Networks user account passwords 285
Changing pcAnywhere passwords 290
Protecting pcAnywhere settings 292
Checking server events for suspicious activity. 294

10 Working with alarms and events 295
Overview of viewing events 296
Changing the Windows NT EventLog size 298
Using the Windows NT Event Viewer 301
Configuring SNMP on the server 303

11 Backing up data 309

Overview of backing up data 310

Section A: Scheduling backups 317

Overview. 318
Scheduling a backup 319
Monitoring backups 324
Other procedures for backups 325

Section B: Performing RAID procedures on a 701t, 702t, 1000t, or 1001t 327

Overview of RAID procedures on a 701t, 702t, 1000t, or 1001t 328
Performing a consistency check on a 701t, 702t, 1000t, or 1001t 329
Splitting the RAID drives on a 701t, 702t, 1000t, or 1001t 331
Performing a RAID backup on a 701t, 702t, 1000t, or 1001t. 337

Section C: Performing RAID procedures on a 1003t 339

Overview of RAID procedures on a 1003t 340
Performing a consistency check on a 1003t 341
Splitting the RAID drives on a 1003t 342
Performing a RAID backup on a 1003t 346
Formatting drives on a 1003t 348

Section D: Full backups using a third-party utility 351

Overview. 352
Preparing for third-party utility backups 353

12 Restoring data 355

Overview of recovery procedures. 356

Section A: Recovery using a tape backup 359

Overview. 360
Restoring the Symposium Call Center Server database 361
Recovering the complete system 365

Section B: Recovering a 1000t, 701t, 702t, or 1001t RAID system 409

Replacing a drive on a 1000t, 701t, 702t, or 1001t. 410
Rebuilding the RAID drives on a 701t, 702t, 1000t, or 1001t 416
Recovering a 701t, 702t, 1000t, or 1001t system running in split mode . . . 419
Recovering a 701t, 702t, 1000t, or 1001t system from a backup 421

Section C: Recovering a 1003t RAID system 425
Recovering a drive on a 1003t 426
Rebuilding the RAID drives on a 1003t 428
Recovering an entire system on a 1003t 430

Section D: Recovery using a third-party backup 433
Overview 434
Performing a restore from a full backup 435

13 Using server utilities 437
Overview 438
Computer Name Sync 440
Nbconfig 442
Database Restore 451
DMI View 452
Feature Report 453
Migration 458
Registry Maintenance 459
Shutdown 460
Startup 462
System Information 463
Uninstall 465

14 Installing and configuring Real-time Statistics Multicast 467
Overview 468
Installing Real-time Statistics Multicast 469
Modifying Real-time Statistics Multicast settings 471
Testing the Real-time Statistics Multicast service 479

15 Troubleshooting 483
Troubleshooting installation problems 484
Troubleshooting network connection problems 489
Troubleshooting the client-server connection 491
Troubleshooting problems with Symposium Call Center Server services . . 493
Troubleshooting problems with RSM 496
Troubleshooting other problems 498
Other documents 500

Part 3 Appendixes 501

Worksheets 503
Overview. 504
Switch information 505
Windows NT configuration information 508
Server and client software installation information 510

Glossary 513

Index 535

Chapter 1

Getting started

In this chapter

Overview 2

About Symposium Call Center Server 4

Related documents 6

Overview

Introduction

The *Symposium Call Center Server Software Installation and Maintenance Guide* provides step-by-step instructions for all of the procedures you must perform to complete the following tasks:

- installing the server software on a Meridian Application Server (MAS) or Platform Vender Independence (PVI) platform
- installing the client software
- converting the server and client software from Release 1.5
- upgrading the server and client software from Release 3.0 or an earlier version of Release 4.0
- reinstalling the server and client software
- uninstalling the server and client software
- installing and uninstalling Performance Enhancement Packages (PEPs)
- starting and stopping the server
- managing security on the server
- monitoring events on the server
- backing up and restoring data
- using server utilities
- troubleshooting server problems
- migrating to a different platform

This chapter introduces Symposium Call Center Server and describes how the call center components interact with each other.

Who should read this guide

This guide is intended for

- Nortel Networks installers and distributors who are responsible for installing or upgrading Symposium Call Center Server

- administrators who are responsible for monitoring and maintaining the server

Access rights

This guide assumes that you have the privileges and access rights required to perform the procedures in this guide. For more information, refer to the *Administrator's Guide*.

Optional features

Some of the features described in this guide are optional. To give you access to features, Nortel Networks supplies a special code called a keycode, which you use when you install the Symposium Call Center Server software. Fields and commands for features that you did not purchase are not available.

About Symposium Call Center Server

What is Symposium Call Center Server?

Symposium Call Center Server provides a call center solution for varied and changing business requirements by offering a suite of applications that includes

- call processing
- agent handling
- management and reporting
- networking (for Meridian 1 systems only)
- third-party application interfaces

Symposium Call Center Server uses a client/server architecture, which distributes call routing and management capabilities among processors to make the best use of system resources.

The components of Symposium Call Center Server

Symposium Call Center Server uses a client/server architecture, with functionality distributed among various components. The major components of Symposium Call Center Server include the following:

- **The server PC**—Responsible for functions such as the logic for call processing, call treatment, call handling, call presentation, and the accumulation of data into historical and real-time databases. This PC runs under Microsoft Windows NT Server 4.0.
- **The client PCs**—A graphical user interface to the server. Client PCs run the Symposium Call Center Server client application. They are used to administer the server and to monitor call center performance. You connect client PCs to the customer LAN (CLAN).
- **The switch**—Provides telephony services and voice network connectivity.
- **Front-end IVR system**—(Optional) Provides voice processing capabilities.

- **Third-party applications**—(Optional) Use information from the server to provide information on screens (“screen pops”) or produce customized reports.

Related documents

Introduction

This section lists the documents in which you can find additional information about installing and maintaining your hardware platform.

Hardware platform installation

The following documents contain procedures for installing the Symposium Call Center Server hardware and software:

If you need information about	Refer to
■ installation of the 701t	*701t Hardware Installation Guide*
■ installation of the 702t	*702t Installation and Maintenance Guide* and *Platform Vendor Independence Base Configuration Guide*
■ installation of the 1001t	*1001t Installation Guide* and *Platform Vendor Independence Base Configuration Guide*
■ installation of the 1003t	*1003t Installation and Maintenance Guide* and *Platform Vendor Independence Base Configuration Guide*
■ installation of a PVI system	Vendor documentation and *Platform Vendor Independence Base Configuration Guide*

Hardware platform maintenance

The following documents contain procedures for maintaining the Symposium Call Center Server hardware:

If you need information about	Refer to
■ maintenance of the 701t	*701t Maintenance and Diagnostics Guide*
■ maintenance of the 702t	*702t Installation and Maintenance Guide*
■ maintenance of the 1001t	*1001t Maintenance Guide*
■ maintenance of the 1003t	*1003t Maintenance Guide*
■ maintenance of a PVI system	Vendor documentation

Software upgrade from Release 1.0 or Release 1.1

If you need information about	refer to
■ upgrading from Symposium Call Center Server Release 1.0 to Release 1.5	*Nortel Networks Symposium Call Center Server Upgrade Instructions from Release 1.0 to Release 1.5*, which accompanies the Symposium Call Center Server Release 3.0 Operating System CD Version 1.0

Part 1

Installation

Chapter 2

Installing the server software

In this chapter

Overview 12

Section A: Checklists 15

Section B: Configuring Windows NT 4.0 server 23

Section C: Installing the server software 71

Overview

Introduction

This chapter provides the procedures to install the Symposium Call Center Server application software on a Meridian Application Server (MAS) or Platform Vendor Independence (PVI) platform.

Note: For Meridian 1 and the DMS/MSL-100 systems, you can use the Symposium Call Center Server Release 4.0 Server Application CD to install the following:

- a Symposium Call Center Server
- a Meridian Link stand-alone server
- a Network Control Center server

The installation process is the same, but the type of server installed is determined by the keycode you enter.

Assumptions

This chapter assumes the following:

- Your hardware platform is installed and operational. If the platform has been installed but is not operational, use the guide for your hardware platform to troubleshoot your system.
- The switch is correctly installed, operational, and configured for use with Symposium Call Center Server.
- All client PCs are operational and running one of the following versions of Windows:
  - Microsoft Windows 95, with the Service Pack supplied by Microsoft
  - Microsoft Windows 95 version 4.00.950B or higher (OSR2)
  - Microsoft Windows 98
  - Windows NT 4.0 Workstation with Service Pack 5 or higher
  - Windows 2000 Professional
- All client PCs are using Microsoft TCP/IP.

- The client local area network (CLAN) and the embedded local area network (ELAN) are installed and operational.

Installing Symposium Call Center Server networking (for Meridian 1 only)

If you are installing networking, plan the server installation information for all servers. Refer to the *Network Control Center Administrator's Guide* for networking requirements and planning information.

Methods of server installation

Method	Requirements
Run the installation program from the Symposium Call Center Server CD-ROM. Use the CD-ROM drive that is part of the hardware platform.	keyboard, mouse, and monitor attached to the server
Run the installation program from Symposium Call Center Server. Use a remote CD-ROM drive that is accessible over the LAN. **Note:** This method is not recommended as network traffic can interfere with proper installation.	keyboard, mouse, and monitor attached to the server
Use pcAnywhere on a remote PC to log on to the Symposium Call Center Server and run the installation program. This might be necessary if you do not have a keyboard and monitor connected to the server, or if the server is in a remote location. Use the CD-ROM drive on the Symposium Call Center Server, or use a CD-ROM drive on a remote PC that is accessible from the Symposium Call Center Server over the LAN.	pc Anywhere installed and configured on both the Symposium Call Center Server (see Chapter 3, "Installing and configuring pcAnywhere") and the remote PC (see the *Administrator's Guide*)

Method	Requirements
Run the installation program from a remote hard disk copy of the installation CDs.	a copy of the CDs on a remote hard disk (accessible over the LAN from the Symposium Call Center Server). The path name of the directory that contains the copy of the CDs cannot contain spaces.

ATTENTION

Installation from a remote CD-ROM drive is supported only if the remote PC is running Windows NT 4.0 Server or Workstation. Installation from a remote CD-ROM drive mounted on a PC running Windows NT 3.51 will fail because Windows NT 3.51 does not support long file names.

Event logging

The SysOps Event log (C:\sysops\sysops.log) tracks events associated with any install, reinstall, upgrade, or uninstallation operation. It also tracks any fatal errors that interrupt these operations.

Use any text editor (for example, Notepad) to view the SysOps Event log.

Section A: Checklists

In this section

Customer-supplied equipment and data 16
Server installation software (for MAS platform only) 18
Server maintenance and diagnostics tools 19
Installation steps checklist 20

Customer-supplied equipment and data

Introduction

Use this checklist to ensure that the customer has supplied the required equipment and information.

Equipment and data required for the server installation

Note: The server installation must be performed on a Nortel Networks-supplied Meridian Application Server (MAS) or a Platform Vender Independence (PVI) platform.

Description	✔
Ethernet connections ready at the switch (cable and transceiver/Multistation Access Unit)	
Hub for the ELAN	
Jacks and cable ready to connect the server to the CLAN	
(Optional) Cable ready to connect the ELAN to the customer WAN	
List of unique names and IP addresses for all equipment on both the CLAN and ELAN (See “Switch information and “Windows NT configuration information.)	
Use the Capacity Assessment Tool to analyze customer LAN bandwidth. Existing average bandwidth utilization = _____%	
(Recommended) Uninterrupted Power Supply (UPS). (See the *Planning and Engineering Guide*.)	
Worksheets from Appendix A, “Worksheets,” completed.	

Notes:

- RAM + 12 Mbytes is the minimum amount of memory required on the server PC.
- For a list of requirements for the client PC, see “Customer-supplied equipment and data checklist” on page 133.

Server installation software (for MAS platform only)

Qty	Description	✔
1	Nortel Networks Symposium Call Center Server Release 4.0 Operating System CD	
1	Nortel Networks Symposium Call Center Server Release 4.0 Platform Support CD Version 1.0 **Note:** If you are using a different version of the CD, refer to your Release Notes or Documentation Addendum.	
1	Nortel Networks Symposium Call Center Server Release 4.0 Server CD	
	(If supplied with this installation) Nortel Networks Symposium Call Center Server Supplementary CD. This CD contains product enhancement packages (PEPs).	
1	Documentation CD. This CD contains all Symposium Call Center Server documents in PDF format.	
1	The emergency repair disk that holds the configuration data for Windows NT. The installer updates this disk during each stage of the Symposium Call Center Server installation on the server.	
1	Keycode data. This data governs the software features you install. This data is usually contained on a disk. However, if you do not have the disk but know your keycode data, you can enter the information manually during the installation.	
1	(for DMS/MSL-100 systems only) Dongle	

Note: For information about server maintenance and diagnostics tools for a PVI platform, refer to the documentation that came with the hardware platform.

Server maintenance and diagnostics tools

Qty	Description	✔
1 set	Driver disks for LAN cards, Software Configuration Utility (SCU) utility	
1 set	(Optional) RAID driver disk and configuration disk	
1	Hardware vendor supplied diagnostics	

Installation steps checklist

Introduction

This checklist provides an overview of the steps required to install a complete system, including a server and one client PC.

Note: The server and client installation takes approximately 4 hours and 30 minutes to complete for one server and one client. This does not include time required for preinstallation planning, switch configuration, or post-installation setup and configuration, such as adding agents or configuring agent to skillset assignments.

Installation steps

Steps		✔
1	Ensure that the switch has been properly configured. Refer to your switch documentation for instructions.	
2	Complete the worksheets in Appendix A, “Worksheets.”	
3	Configure Windows NT. Follow the instructions in Section B: “Configuring Windows NT 4.0 server,” on page 23. ***Time to complete:*** approximately 30 minutes	
4	Configure pcAnywhere 9.2 on the server. Follow the instructions in “Configuring pcAnywhere” on page 100. ***Time to complete:*** approximately 10 minutes	
5	Establish a connection to the server by attaching a keyboard and monitor, or by using pcAnywhere. See page 13.	
6	Install the server software. Follow the instructions in Section C: “Installing the server software,” on page 71. ***Time to complete:*** approximately three hours	

Steps		✔
7	Install the client software. Follow the instructions in Chapter 5, “Installing the client software.” ***Time to complete:*** approximately 30 minutes	
8	Return to the server computer to complete the server installation. Continue with “To complete the server installation” on page 88. ***Time to complete:*** approximately 10 minutes	
9	Optionally, install the Symposium Call Center Server client on additional PCs as required.	

Section B: Configuring Windows NT 4.0 server

In this section

Overview	24
Checklist for configuring Windows NT	25
Preparing for installation	26
Logging on to Windows NT as Administrator	28
Changing the Administrator password	29
Configuring and verifying Windows NT settings	32
Configuring TCP/IP for ELAN, CLAN, and Remote Access Service	45
Configuring the modem for Remote Access Service	57
Formatting optional drives (PVI platforms only)	63
Updating the emergency repair disk	65
Testing the network connection	67
Restarting the server	69

Overview

Introduction

This chapter contains the procedures for configuring Windows NT. You must complete these steps before installing the Symposium Call Center Server software.

Checklist for configuring Windows NT

Step		✔
1	Ensure that you have completed the checklists and worksheets in Appendix A, “Worksheets.”	
2	Complete the tasks in “Preparing for installation.	
3	Obtain the current and default Administrator passwords.	
4	Log on to Windows NT as Administrator. See page 28.	
5	Change the Administrator password. See page 29.	
6	Verify the Windows Service Pack level. See page 32.	
7	Verify that Remote Access Service (RAS) and SNMP are installed. See page 33.	
8	Verify that RAS is set to automatic. See page 36.	
9	Check the virtual memory settings. See page 36.	
10	Set the date, time, and time zone. See page 37.	
11	Change the computer and workgroup names. See page 40.	
12	Configure TCP/IP for the ELAN, CLAN, and RAS. See page 45.	
13	Configure the modem for RAS. See page 57.	
14	Format all disk drives. See page 63.	
15	Update the emergency repair disk. See page 65.	
16	Test the network connection. See page 67.	

Preparing for installation

Items to verify

	✔
Verify all of the IP addresses and host names. The IP addresses and host names must be unique within the network. See “Windows NT configuration information” on page 508.	
Ensure that the Windows NT computer name and TCP/IP DNS host name that you intend to assign are identical, including uppercase and lowercase letters.	
Meridian 1 checks	
Ensure that the switch host name, IP name, and net mask are the same as those displayed by the STAT ELNK command in LD 137.	
Ensure that the switch serial number matches the one delivered with the Symposium Call Center Server keycode. The serial number must match exactly, including uppercase and lowercase letters.	
DMS/MSL-100 checks	
Ensure that the switch IP name and net mask are the same as those displayed by the STAT ELNK command in LD 137.	
Ensure that the switch serial number matches the one delivered with the Symposium Call Center Server keycode. The serial number must match exactly, including uppercase and lowercase letters.	
Ensure that the security keylock device (the “dongle”) is attached to the server. **Note:** The dongle is not required for installation. However, without the dongle, the server cannot communicate with the switch.	

Requirements

A mouse, monitor, and keyboard must be connected to the server.

Note: If reconfiguration is required at a later time, you can do the reconfiguration through a local or remote pcAnywhere session.

About server restarts

You might be asked several times during Windows NT configuration if you want to restart the server. You must restart the server to activate some Windows NT configuration changes.

CAUTION

Risk of file corruption

Do not press the power button on the front of the server to shut down your system. If possible, perform the system shutdown described in “Restarting the server” on page 69.

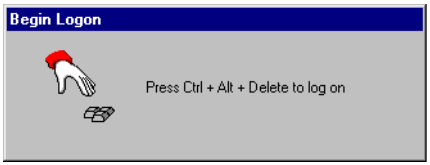
Logging on to Windows NT as Administrator

To log on as Administrator

ATTENTION

When logging on to Windows NT, ensure that the Caps Lock key is not locked. The password is case-sensitive.

1 Ensure that the server has started and the Windows NT Begin Logon dialog box appears.



2 Press Ctrl+Alt+Delete.

Result: The Logon Information dialog box appears.

3 Type **Administrator** as the user name.

4 The Nortel Networks installed default password is **abc123** (for Nortel Networks-supplied MAS platforms). For passwords for PVI platforms, contact your network administrator.

5 Click OK.

What's next?

Continue with "Changing the Administrator password" on page 29.

Changing the Administrator password

Purpose

To ensure server security, change the default Administrator password as soon as possible.

Password recommendations

Nortel Networks recommends that your password meet the following requirements:

- The password is six to ten characters long.
- The password contains at least one number, and one symbol or punctuation character.
- The password should not contain common words or nouns.
- The password conforms to company rules (for PVI platforms).

Example

The following password example meets all of these recommendations:
xyd45fst

Password security

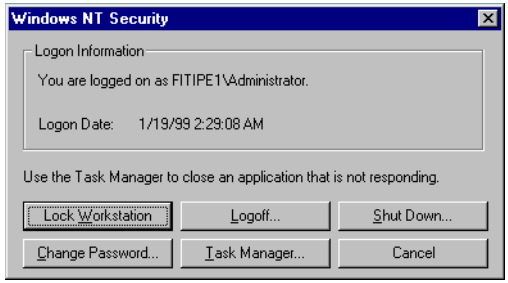
Write down the new Administrator password that you create, and store it in a safe, secure place away from the server (as recommended by the network administrator). Give the Administrator password to only those who need it.

To change the Administrator password

1 Log on to Windows NT as Administrator.

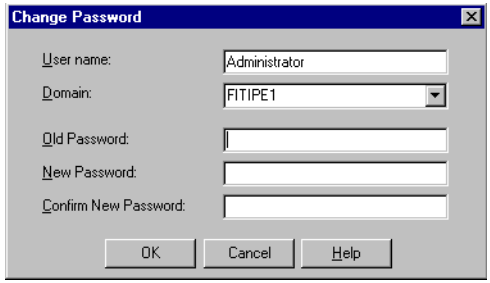
2 Press Ctrl+Alt+Delete.

Result: The Windows NT Security dialog box appears.



3 Click Change Password.

Result: The Change Password dialog box appears.



4 Type the current password in the Old Password box.

5 Type the new password in the New Password box and in the Confirm New Password box.

6 Click OK.

Result: A dialog box appears indicating that the password has been successfully changed.

7 Click OK.

Result: You return to the Windows NT Security dialog box.

8 Click Cancel to close the Windows NT Security dialog box.

9 Record the password and store it in a safe, secure place away from the server (as recommended by the network administrator).

Configuring and verifying Windows NT settings

Introduction

All of the following procedures are required to configure Windows NT for Symposium Call Center Server. Follow the procedures in this section in the order in which they appear.

To verify the Windows Service Pack level

1 Log on to Windows NT as Administrator.

2 Open the Control Panel (from the Windows Start menu, choose Settings → Control Panel).

Result: The Control Panel appears.

3 Choose Help → About Windows NT.

4 Check the Windows NT 4.0 version number. If Service Pack 6A is not installed, go to step 5. If Service Pack 6A is installed, go to "To verify that RAS and SNMP are installed, and to install them if required" below.

ATTENTION

If you must install or reinstall any features on Windows NT (for example, if you must reinstall SNMP, reinstall RAS, or install a new network card), then you must reinstall the Service Pack.

5 To install Windows NT Server 4.0 Service Pack 6A, insert the Symposium Call Center Server Release 4.0 Platform Support CD Version 1.0 into the CD-ROM drive.

6 If the Windows NT Setup splash screen appears, click Close to close the screen.

7 From the Start menu, choose Programs → Windows NT Explorer.

Result: The Windows NT Explorer screen appears.

8 Click the plus sign (+) next to the CD-ROM drive to display its subdirectories.

9 Select the directory containing the Service Pack (E:\Service Pack 6A\US-40bit, where E is your CD-ROM drive).

10 Run Sp6ai386.exe and follow the screen instructions.

11 When the message `Welcome to Service Pack 6 Setup` appears, select Accept the Licence Agreement, and then click Install to install the Service Pack on your computer.

12 When the message `Windows NT 4.0 Service Pack installation is complete` appears, select Restart to restart the computer.

Result: The computer restarts.

To verify that RAS and SNMP are installed, and to install them if required

1 Log on to Windows NT as Administrator.

2 In the Control Panel window, double-click the Network icon.

Result: The Network property sheet opens.

3 Click the Services tab.

4 If you plan to use SNMP, verify that SNMP Service is in the list of services. If it is not present, follow these steps:

   a. Insert the Symposium Call Center Server Release 4.0 Operating System CD Version 1.0 in the CD-ROM drive.

   b. Click Add.

   c. Select SNMP Service.

   d. Click OK.

   Note: Be sure to configure SNMP to forward traps to an NMS. See the following procedure.

5 If Remote Access Service is not in the list of services, follow these steps:

   a. Insert the Symposium Call Center Server Release 4.0 Operating System CD Version 1.0 in the CD-ROM drive.

   b. Click Add.

   c. Select Remote Access Service.

   d. Click OK.

   Note: Be sure to follow the procedures in “To configure the Remote Access Service” on page 53” and “Configuring the modem for Remote Access Service” on page 57 to configure RAS.

6 Install the service pack (see “To verify the Windows Service Pack level).

To configure the Windows NT SNMP service to forward traps to an NMS

1 In the Control Panel window, double-click the Network icon.

   Result: The Network property sheet opens.

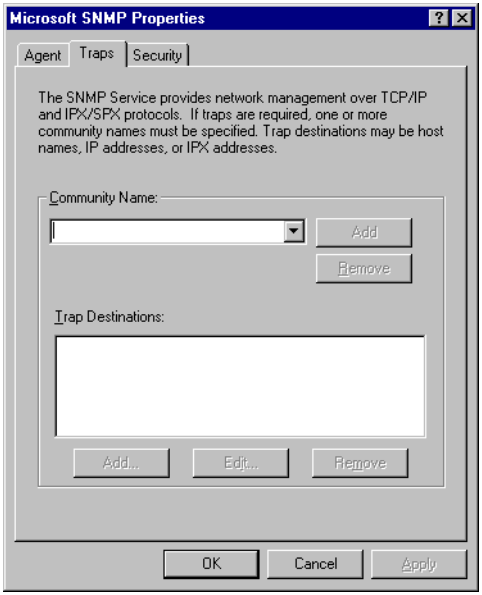
2 Click the Services tab.

3 In the list of Network Services, select SNMP Service.

4 Click Properties.

   Result: The SNMP Properties property sheet appears.

5 Click the Traps tab.



6 If no community name is defined, type **public** and click Add.

7 Add the IP address of the NMS to which the server will send traps, by clicking Add and typing the IP address of the NMS.

8 Click OK.

Result: The Microsoft SNMP Properties property sheet closes and you return to the Network property sheet.

9 Click Close.

Result: The Network property sheet closes.

10 In the Control Panel window, double-click the Services icon.

Result: The Services dialog box appears.

11 Select the SNMP Trap Service.

12 Click Start.

Result: The SNMP Trap Service starts.

13 Click Close.

Note: You must also configure the NMS to receive and interpret traps.

To verify that the RAS service is set to automatic

This service must be set to automatic to support dial-in connections from the client PC or from support personnel.

1 In the Control Panel window, double-click Services.

2 Scroll to Remote Access Server.

3 If Remote Access Server is not set to automatic, then do the following:

   a. Select Remote Access Server.

   b. Click Startup.

   c. Select Automatic.

4 Click OK.

To verify the virtual memory settings and change them, if required

Follow this procedure to verify the virtual memory (that is, swapfile) settings. For efficient operation, Nortel Networks recommends that the server be configured for RAM size plus 12 Mbytes of virtual memory.

1 In the Control Panel window, double-click System.

2 Click the Performance tab.

3 In the Virtual Memory section, click Change.

   Result: The Virtual Memory dialog box opens.

4 Select drive D.

5 Under Paging File Size for Selected Drive, ensure that the values are

   - RAM size plus 12 Mbytes for Initial Size (for example, 256 + 12 = 268 Mbytes)
   - RAM size plus 12 Mbytes for Maximum Size (for example, 256 + 12 = 268 Mbytes)

6 If the values for Initial Size and Maximum Size are correct, then click Cancel to exit.

7 If you need to change the values for Initial Size and Maximum Size, then follow these steps:

a. Type 268 for Initial Size, and 268 for Maximum Size (for example, 256 + 12 = 268 Mbytes).

b. Click Set, and then click OK.

Result: You return to the System Properties property sheet.

c. Click OK.

d. Click No when prompted to restart the server. You can restart the server later.

Note: Do not split virtual memory across multiple drives.

For more information on memory requirements, refer to the *Planning and Engineering Guide.*

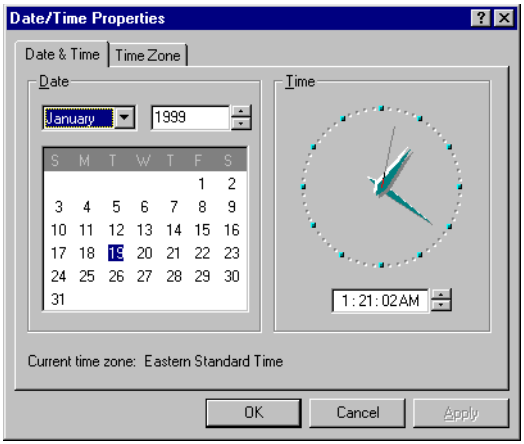
To change the date, time, and time zone

Set the server date and time now to help with the analysis of system events that occur in Windows NT Event Viewer during installation.

Note: For the Meridian 1 switch, after the server is fully operational and connected to the switch, the switch controls the date and time.

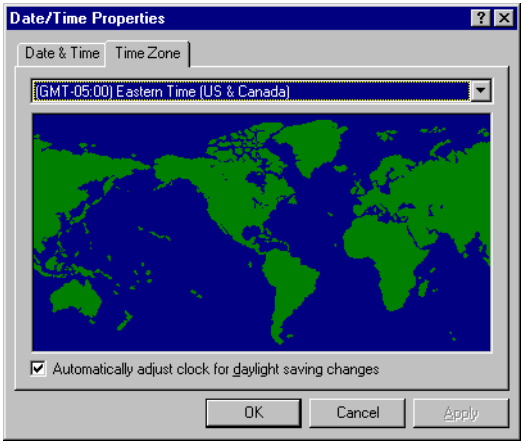
1 In the Control Panel window, double-click the Date/Time icon.

Result: The Date/Time Properties property sheet appears.



2 Click the Time Zone tab.

Result: The Time Zone property page appears.



3 Select the appropriate time zone from the drop-down list box.

4 Confirm which type of switch you are using, and then perform one of the following:

a. If you are using a Meridian 1 switch, ensure that Automatically adjust clock for daylight saving changes is unchecked.

b. If you are using a DMS/MSL-100 switch, ensure that Automatically adjust clock for daylight saving changes is checked for regions using daylight savings time.

c. If you have purchased the Network Skill-Based Routing feature and are setting the time zone for the Network Control Center server, ensure that Automatically adjust clock for daylight saving changes is checked.

5 Click the Date & Time tab.

6 Select the current month, year, day, and time.

7 Click OK.

To change event viewer settings

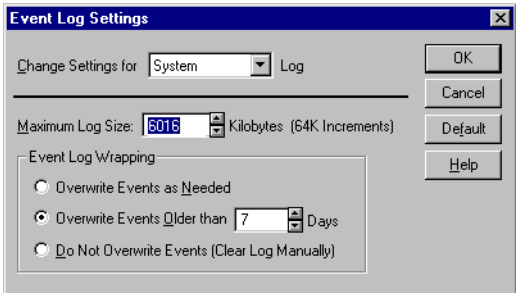
Change the event viewer settings if the default value will not store enough information about system events within Symposium Call Center Server.

1 From the Windows Start menu, choose Programs → Administrative Tools (Common) → Event Viewer.

Result: The event viewer window appears.

2 Choose Log → Log Settings.

Result: The Event Log Settings dialog box appears.



3 Change the value in the Maximum Log Size box by entering a new value (in kilobytes), according to the following guidelines:

- For a small call center with few agents, leave the value at default (512 kbytes).
- For a medium-size call center with a moderate number of agents, set the value at 6016 kbytes or more, depending on the number of days of event history to be kept (that is, the more days that event records are kept, the larger the log size must be).
- For a large call center with many agents, set the value at 10 048 kbytes or greater, depending on the number of days of event history to be kept.

4 Click OK to close the window.

To change the computer and workgroup names

The computer name and workgroup name uniquely identify the server on your network.

CAUTION

Risk of database errors

To prevent database errors, make sure the computer's DNS host name matches the computer name. During this procedure, you are instructed to verify that the DNS host name matches the computer name.

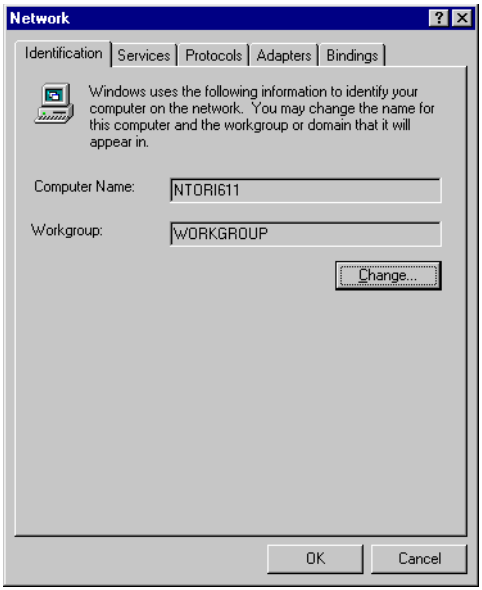
ATTENTION

By default, a new server is installed with a dummy computer name that uniquely identifies it. When you configure the server, you assign it the correct name.

Note: This applies only to Nortel Networks supplied MAS platforms.

1 In the Control Panel window, double-click Network.

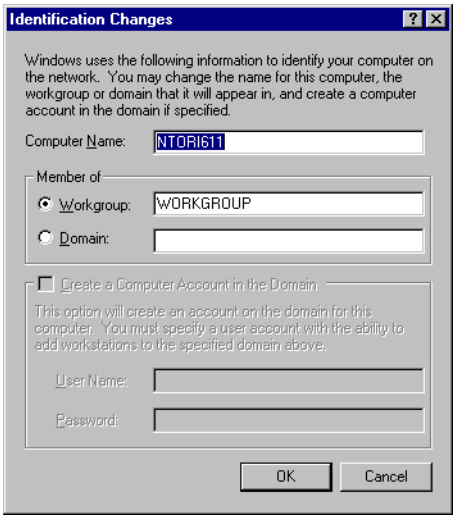
Result: The Network property sheet appears.



2 Record the default Computer Name and provide a copy to the network administrator.

3 Click Change.

Result: The Identification Changes dialog box appears.


Identification Changes
Windows uses the following information to identify your computer on the network. You may change the name for this computer, the workgroup or domain that it will appear in, and create a computer account in the domain if specified.
Computer Name:
NTORI611
Member of
Workgroup:
WORKGROUP
Domain:
Create a Computer Account in the Domain
This option will create an account on the domain for this computer. You must specify a user account with the ability to add workstations to the specified domain above.
User Name:
Password:
OK
Cancel

4 Enter the new computer name. The new computer name must be a single word without spaces, 6 to 15 characters long. Letters, numbers, a hyphen, and a dash are allowed.

5 Click OK.

Result: A message appears, indicating that the name change was successful.

6 Click OK.

Result: The Network property sheet appears.

7 Click Change.

Result: You return to the Identification Changes dialog box.

8 Select the Workgroup option.

ATTENTION

The server must be in a workgroup. It cannot be a member of a domain, or else the server software can fail to function.

9 Enter the workgroup name.

10 Click OK.

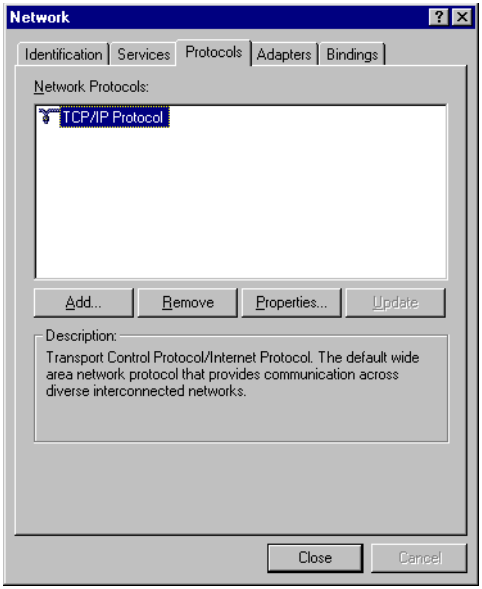
Result: A welcome message appears.

11 Click OK.

Result: The Network property sheet appears.

12 In the Network property sheet, click the Protocols tab.

Result: The Protocols property page appears.



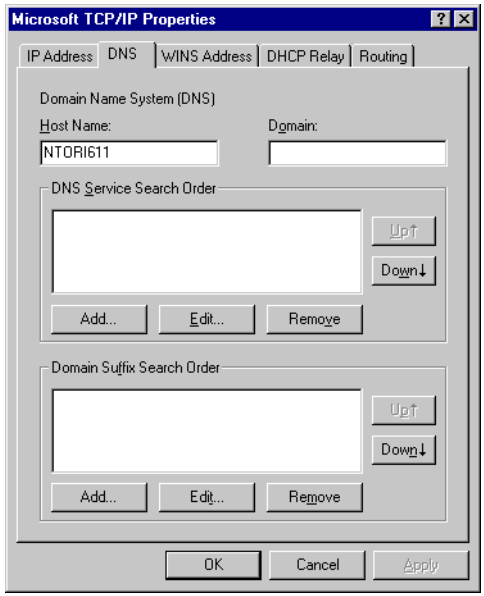
13 Select TCP/IP Protocol from the list of installed protocols.

14 Click Properties.

Result: The Microsoft TCP/IP Properties property sheet appears.

15 Click the DNS tab.

Result: A DNS property page appears, similar to the following example:



16 Change the DNS Host Name to match the Computer Name.

Note: The Host Name and Computer Name must match *exactly*, including case.

17 Click OK.

Result: The Network property sheet appears.

18 Click Close to complete the change.

Do not restart the server at this time as it will be restarted later.

Configuring TCP/IP for ELAN, CLAN, and Remote Access Service

Introduction

To enable communication with the server, you must configure TCP/IP for the

- ELAN network interface card (NIC) (see below)
- CLAN NIC (see page 48)
- Remote Access Service (RAS) (see page 53)

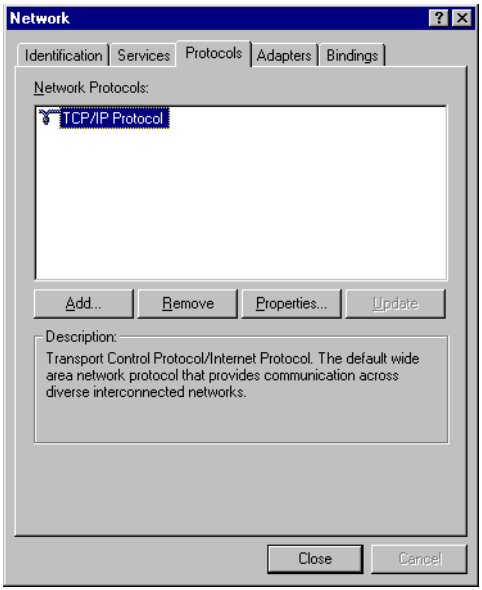
Note: These procedures apply to initial installation only. If you are performing a system rebuild, these procedures do not apply.

To configure the ELAN NIC

1. Log on to Windows NT as Administrator.
2. Open the Control Panel (from the Windows Start menu, choose Settings → Control Panel).
3. In the Control Panel window, double-click Network.

4 In the Network property sheet, click the Protocols tab.

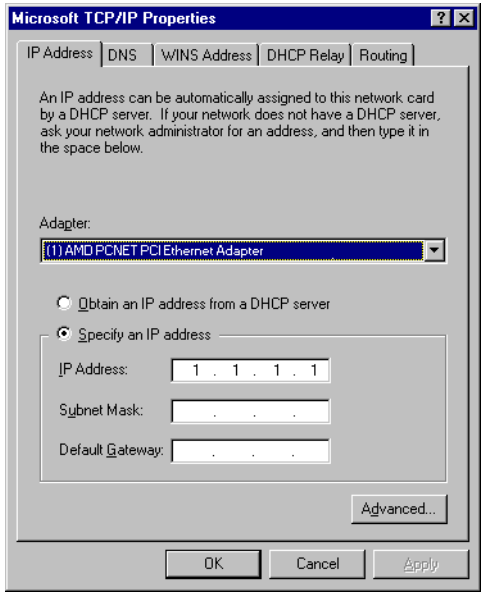
Result: The Protocols property page appears.



5 Select TCP/IP Protocol from the list of network protocols.

6 Click Properties.

Result: A Microsoft TCP/IP Properties property sheet appears, similar to the following example:


Microsoft TCP/IP Properties
IP Address
DNS
WINS Address
DHCP Relay
Routing
An IP address can be automatically assigned to this network card by a DHCP server. If your network does not have a DHCP server, ask your network administrator for an address, and then type it in the space below.
Adapter:
(1) AMD PCNET PCI Ethernet Adapter
Obtain an IP address from a DHCP server
Specify an IP address
IP Address:
1 . 1 . 1 . 1
Subnet Mask:
Default Gateway:
Advanced...
OK
Cancel
Apply

ATTENTION

The server must not be a DHCP client.

7 In the Adapter box, select the adapter in the drop-down list that has the placeholder IP address, 1.1.1.1. This adapter is the ELAN card (for the Nortel Networks shipped server only).

Tip: Write down the Ethernet adapter name for the ELAN card and give this information to the local administrator for future reference. If you ever have to reinstall the ELAN card, you must know the name of the ELAN card.

8 Click Specify an IP address.

9 Enter the server's ELAN IP address in the IP Address box.

ATTENTION

Make sure that the ELAN IP address is unique and is not used by any other devices or locations on the LAN or WAN.

10 In the Subnet Mask box, enter the server's ELAN subnet mask (as supplied by the network administrator).

11 Ensure that the Default Gateway box is blank.

12 Click OK.

Result: You return to the Network property sheet.

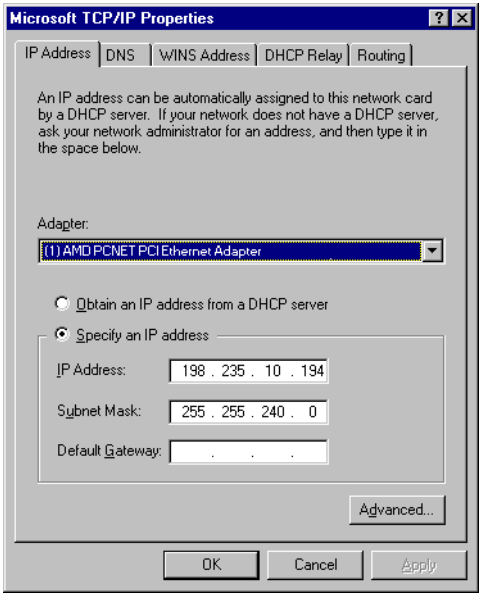
13 Continue with the following procedure.

To configure the CLAN NIC

1 On the Protocols property page of the Network property sheet, select TCP/IP Protocol.

2 Click Properties.

Result: The Microsoft TCP/IP Properties property sheet appears.


Microsoft TCP/IP Properties
IP Address
DNS
WINS Address
DHCP Relay
Routing
An IP address can be automatically assigned to this network card by a DHCP server. If your network does not have a DHCP server, ask your network administrator for an address, and then type it in the space below.
Adapter:
(1) AMD PCNET PCI Ethernet Adapter
Obtain an IP address from a DHCP server
Specify an IP address
IP Address:
198 . 235 . 10 . 194
Subnet Mask:
255 . 255 . 240 . 0
Default Gateway:
Advanced...
OK
Cancel
Apply

ATTENTION

The server must not be a DHCP client.

3 In the Adapter box, select the adapter in the drop-down list that has the placeholder IP address, 2.2.2.2. This adapter is the CLAN card (for the Nortel Networks-shipped server only).

Tip: Write down the Ethernet adapter name for the CLAN card and give this information to the local network administrator for future reference. If you ever have to reinstall the CLAN card, you must know the name of the CLAN card.

4 Click Specify an IP address.

5 Enter the server's CLAN IP address in the IP Address box.

6 In the Subnet Mask box, enter the server's CLAN subnet mask (as supplied by the network administrator).

7 Enter the gateway IP address in the Default Gateway box.

Note: To enter more IP addresses, subnet masks, and gateways, click Advanced.

8 Click OK.

Result: You return to the Network property sheet.

9 Continue with the following procedure.

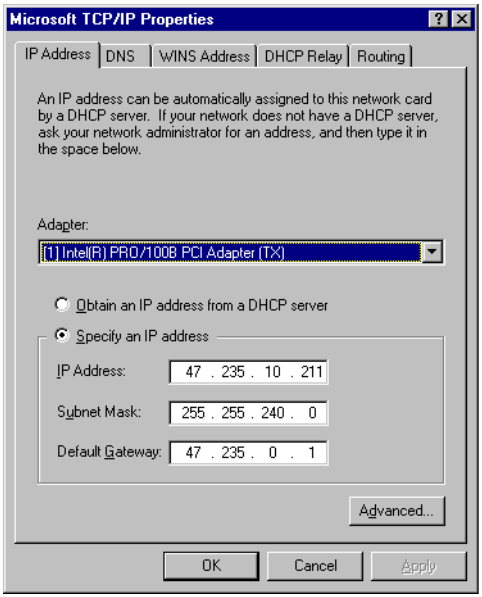
To configure the server to support DHCP client PCs

If your client PCs use Dynamic Host Control Protocol (DHCP) to communicate with the server, you must configure the DNS and WINS options. To configure DNS and WINS, perform the following steps.

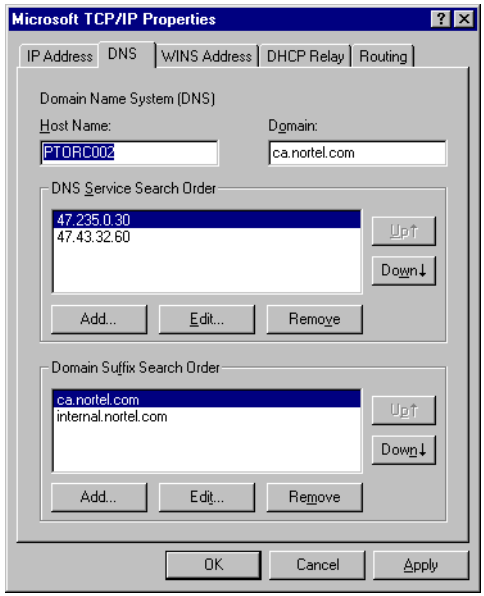
1 On the Protocols property page of the Network property sheet, select TCP/IP Protocol.

2 Click Properties.

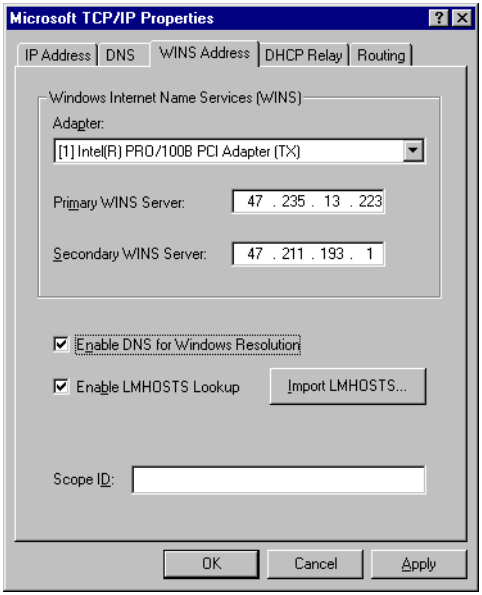
Result: The Microsoft TCP/IP Properties property sheet appears.


Microsoft TCP/IP Properties
IP Address
DNS
WINS Address
DHCP Relay
Routing
An IP address can be automatically assigned to this network card by a DHCP server. If your network does not have a DHCP server, ask your network administrator for an address, and then type it in the space below.
Adapter:
[1] Intel(R) PRO/100B PCI Adapter (TX)
Obtain an IP address from a DHCP server
Specify an IP address
IP Address:
47 . 235 . 10 . 211
Subnet Mask:
255 . 255 . 240 . 0
Default Gateway:
47 . 235 . 0 . 1
Advanced...
OK
Cancel
Apply

3 Click the DNS tab and ensure that the Host Name and Domain boxes show the computer's host name and domain name.



4 Click the WINS Address tab and ensure that the check boxes entitled Enable DNS for Windows Resolution and Enable LMHOSTS Lookup are checked.



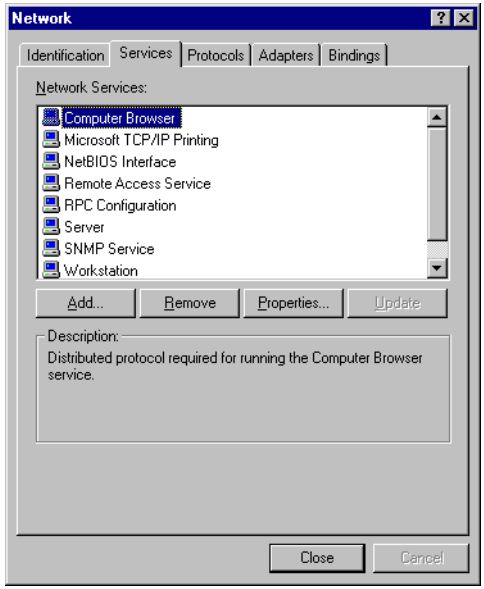
Note: When you configure DNS and WINS services, you enable the server to communicate scheduled report information with the client PCs. If DNS or WINS is not configured, the server cannot determine the IP address of the clients, and no scheduled report information is sent from the server back to the client.

To configure the Remote Access Service

Note: The Remote Access Service requires a pool of IP addresses to grant dial-in privileges to remote clients. To assign a pool, you specify a range of IP addresses in the same subnet as the CLAN IP address. This range must include at least two available IP addresses. Remote Access Service uses the first IP address. The remaining IP addresses are loaned to each dial-in client. Select the range carefully.

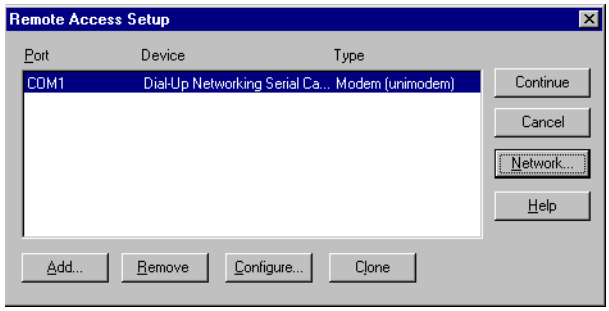
1 In the Network property sheet, click the Services tab.

Result: The Services property page appears.



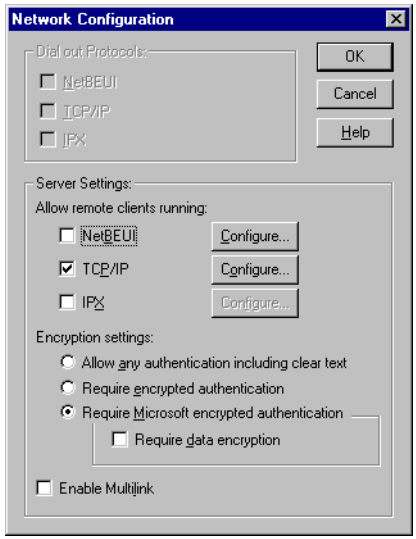
2 Select Remote Access Service, and then click Properties.

Result: The Remote Access Setup dialog box appears.



3 Click Network.

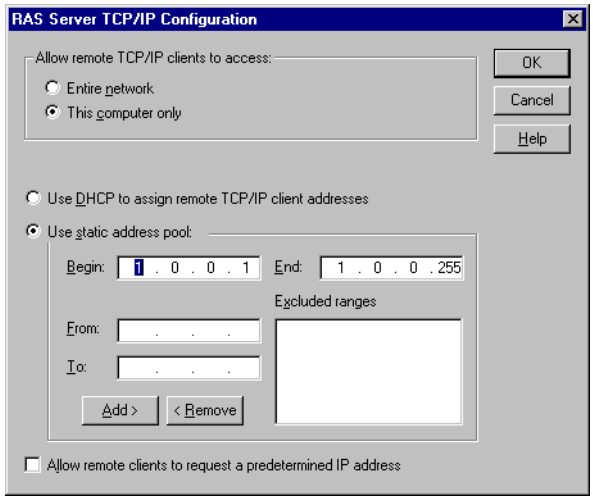
Result: The Network Configuration dialog box appears.



4 In the Server Settings section, select TCP/IP.

5 Click TCP/IP Configure.

Result: The RAS Server TCP/IP Configuration dialog box appears.



6 Click This computer only.

7 Click Use static address pool.

8 Enter the range of IP addresses in the Begin and End boxes in the same subnet as the CLAN IP address.

Notes:

- Check with your network administrator.
- Use the From and To boxes and the Add and Remove buttons to exclude one or more IP address ranges.

9 Ensure that the Allow remote clients to request a predetermined IP address check box is *not* checked.

10 Click OK to close the RAS Server TCP/IP Configuration dialog box.

Result: You return to the Network Configuration property sheet.

11 Click OK.

Result: You return to the Remote Access Setup dialog box.

12 Click Continue.

Result: You return to the Network property sheet.

13 Continue with the following procedure.

To save the network settings

1 In the Network property sheet, click OK.

Result: You might be prompted with a warning indicating that at least one installed NIC contains an empty primary WINS address. Ignore this warning and click Yes. You are then asked if you want to restart your computer.

2 Click Yes to restart the server.

Result: The server restarts.

Configuring the modem for Remote Access Service

Introduction

Follow this procedure to configure the modem for Remote Access Service (RAS) for remote support of the server.

To configure the modem

1. Log on to Windows NT as Administrator.
2. Open the Control Panel (from the Windows Start menu, choose Settings → Control Panel).
3. In the Control Panel window, double-click Modems.

   Result: The Modems Properties property sheet appears.

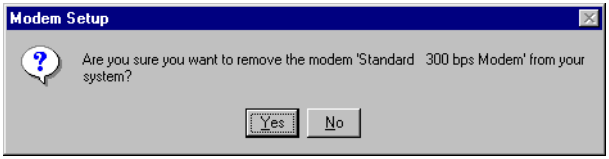
4 If a modem is listed and it matches the actual modem installed, then do the following:

a. Exit from the Modems control panel.

b. Go to “What’s next?” on page 62.

5 If a modem is listed and it does not match the actual modem installed, then select it and click Remove.

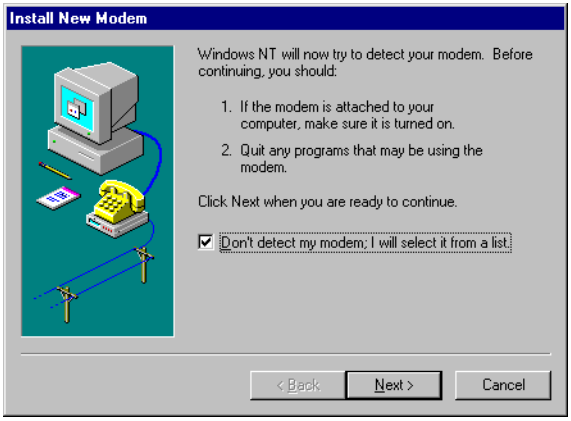
Result: The system prompts you with a message similar to the following:



6 Click Yes.

7 Click Add to add the correct modem.

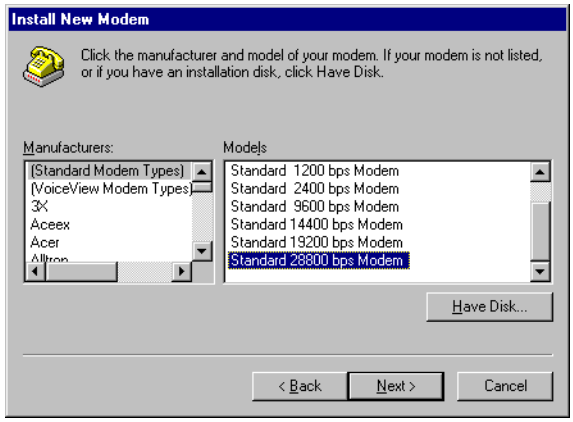
Result: The Install New Modem window appears.


Install New Modem
Windows NT will now try to detect your modem. Before continuing, you should:
1. If the modem is attached to your computer, make sure it is turned on.
2. Quit any programs that may be using the modem.
Click Next when you are ready to continue.
Don't detect my modem; I will select it from a list.
< Back
Next >
Cancel

8 Check the Don’t detect my modem; I will select it from a list box.

9 Click Next.

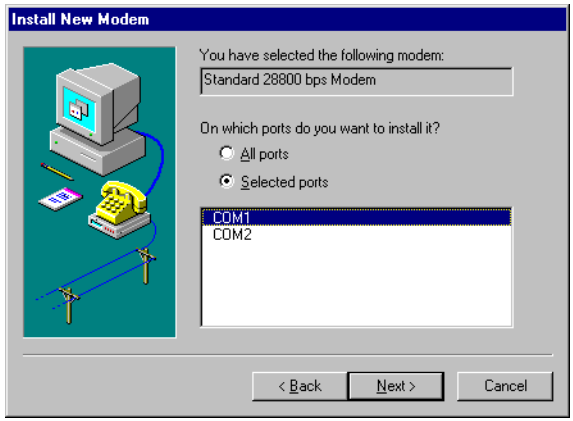
Result: The system prompts you to select your modem.



Note: If you are using an internal modem, insert the driver disk that came with the modem, and then click Have Disk to continue.

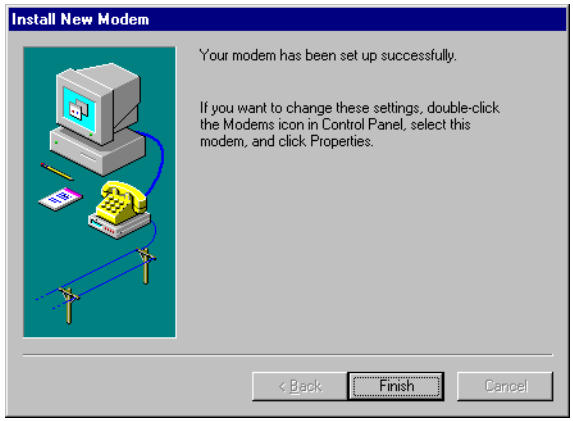
10 Select the type of modem installed on the server and click Next. If your modem is not listed, select the Standard 28800 bps Modem, and then click Next.

Result: The following dialog box appears:



11 Click Selected ports, select COM1, and then click Next.

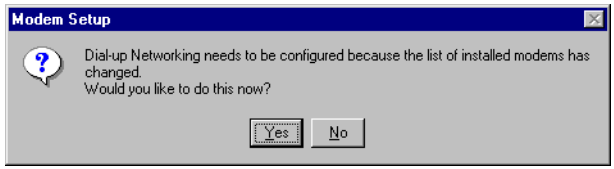
Result: The following dialog box appears:


Install New Modem
Your modem has been set up successfully.
If you want to change these settings, double-click the Modems icon in Control Panel, select this modem, and click Properties.
< Back
Finish
Cancel

12 Click Finish to complete installing the modem.

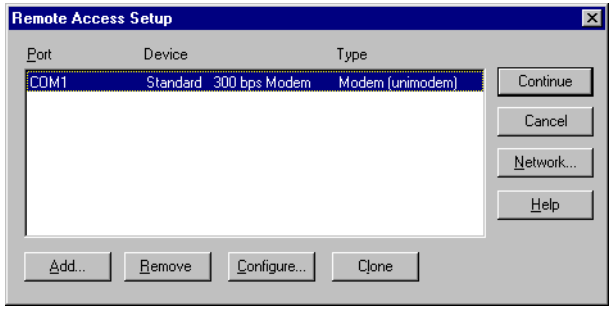
13 Click Close to close the Modems Properties property sheet.

Result: The system prompts you for changes to Dial-Up Networking because the modem has changed.


Modem Setup
Dial-up Networking needs to be configured because the list of installed modems has changed.
Would you like to do this now?
Yes
No

14 Click Yes to continue.

Result: The Remote Access Setup dialog box appears.



15 Select the old modem listed (usually on COM1).

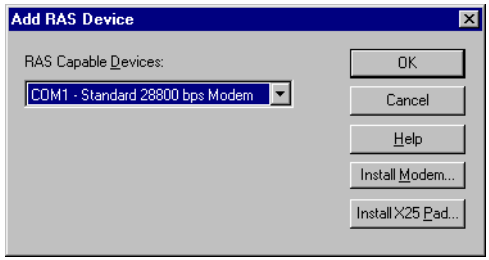
16 Click Remove.

Result: The following window appears:

17 Click Yes to confirm that you want to remove the modem.

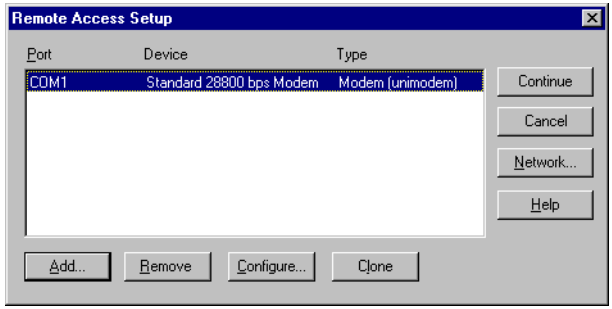
18 Click Add.

Result: The Add RAS Device dialog box appears.



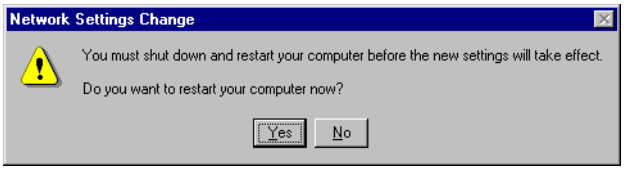
19 Select the installed modem from the drop-down list, and then click OK.

Result: The Remote Access Setup dialog box appears.



20 Click Continue to save the changes.

Result: The system prompts you to restart.


Network Settings Change
You must shut down and restart your computer before the new settings will take effect.
Do you want to restart your computer now?
Yes
No

21 Click No. You can restart later.

What's next?

If your system has additional optional drives that were not formatted at the factory, see "Formatting optional drives (PVI platforms only)" on page 63.

If your system does not have additional optional drives, continue with "Updating the emergency repair disk" on page 65.

Formatting optional drives (PVI platforms only)

Introduction

Follow this procedure only if the server is equipped with optional multiple drives that have not been factory-formatted. For details about disk partitioning, refer to the maintenance guide for your hardware platform.

To format optional drives

CAUTION

Risk of data loss

Use only the Disk Administrator functions documented in this procedure.

1. Log on to Windows NT as Administrator.
2. From the Windows Start menu, choose Programs → Administrative Tools → Disk Administrator.

   Result: The Disk Administrator window appears. This window shows partition and formatting information for all installed drives. If drives are not partitioned, continue with the following steps.
3. Select the unpartitioned drive (for example, Disk 1).
4. Click the right mouse button, and choose Create Extended.
5. Enter a partition size.

   Note: For standard partition sizes for the supported platforms, refer to the *Planning and Engineering Guide.*
6. Click the newly created partition.
7. Click the right mouse button and choose Create a logical drive.
8. Enter the partition (logical drive) size, and click OK.
9. Choose File → Commit Changes Now.

10 Click Yes to confirm.

11 Choose Tools → Format, and format the drive as NTFS.

12 Repeat steps 3 to 11 for all remaining newly partitioned disks.

13 Exit from Disk Administrator by choosing Partition → Exit.

Note: Extended partitions (logical drives) are light blue in the Disk Administrator. Primary partitions are dark blue.

Continue with “Updating the emergency repair disk” on page 65.

What’s next?

Continue with “Updating the emergency repair disk.

Updating the emergency repair disk

Introduction

You must restart the computer and update the emergency repair disk to record the latest configuration data for the server. Do this every time you change the server configuration (for example, if you change the computer name or IP address).

To update the emergency repair disk

1. Log on to Windows NT as Administrator.
2. From the Windows Start menu, choose Shutdown.

   Result: The Shut Down Windows dialog box appears.
3. Select Restart the computer, and then click Yes.
4. When the server restarts, press Ctrl-Alt-Delete to log on.
5. Log on to Windows NT as Administrator.
6. From the Windows Start menu, choose Programs → Command Prompt.
7. Insert the emergency repair disk in the floppy drive.

   Note: If the disk is not available, insert a blank disk. The program formats it before copying the configuration files.
8. In the Command Prompt window, type **rdisk**, and then press Enter.

   Result: The Repair Disk Utility dialog box appears.

Repair Disk Utility
This utility updates the repair information saved when you installed the system, and creates an Emergency Repair disk. The repair information is used to recover a bootable system in case of failure. This utility should not be used as a backup tool.
Update Repair Info
Create Repair Disk
Exit
Help

9. Do one of the following steps:
   - If you are updating an existing repair disk, click Update Repair Info.
   - If you have inserted a blank floppy disk, click Create Repair Disk.

10 Click Yes in response to the next two prompts.

11 At the prompt `All data on floppy disk is erased`, click OK.

Result: You see messages indicating that the disk is being formatted and configuration files are being copied.

12 Close the command prompt window by clicking the Close box at the top right corner of the window.

13 Remove the emergency repair disk, label it, and store it in a safe place. You must update it again after installing the application software on the server.

Testing the network connection

Introduction

Follow the procedure in this section to ensure that the network is accessible to the server, and to ensure that traffic on the CLAN is isolated from the ELAN.

To test the ELAN and CLAN network connection

1. Log on to Windows NT as Administrator.
2. From the Windows Start menu, choose Programs → Command Prompt.
3. In the Command Prompt window, type **ping** followed by the ELAN IP address for the switch, and then press Enter.

   Example: ping 12.38.3.8

   Result: The display indicates whether the ping was successful.
   If a successful ping message is not received, then no connection has been made. If no connection has been made, follow the steps in “Troubleshooting network connection problems” on page 489.
4. If a CLAN card is installed on the server, type **ping** followed by the CLAN IP address of another PC on the CLAN, and then press Enter.

   Example: ping 47.2.13.9

   Result: The display indicates whether the ping was successful.
   If a successful ping message is not received, then no connection has been made. If no connection has been made, follow the steps in “Troubleshooting network connection problems” on page 489.
5. Type **exit** and press Enter to close the Command Prompt window.

To verify that the ELAN and CLAN are isolated from each other

Follow these steps at each server (including the NCC).

1. Ping a client PC on the CLAN.
2. Ping another machine on the ELAN (for example, the switch).

   Note: The NCC is not connected to a switch on the ELAN, so ping a test machine.
3. Disconnect the ELAN cable from the server.
4. Repeat steps 1 and 2.

   Result: Only the CLAN ping should be successful.
5. Reconnect the ELAN cable to the server, and disconnect the CLAN cable.
6. Repeat steps 1 and 2.

   Result: Only the ELAN ping should be successful.
7. Reconnect the CLAN cable to the server.

Restarting the server

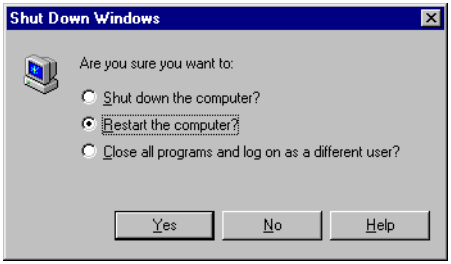
Introduction

To put configuration changes into effect, you must restart the server. If you have followed the procedure in “Updating the emergency repair disk” on page 65, then you have already restarted the server and do not need to restart it again. If you have not updated the emergency repair disk, proceed to shut down and restart now.

To restart the server

1. Log on to Windows NT as Administrator.
2. From the Windows Start menu, choose Shut Down.

   Result: The Shut Down Windows dialog box appears.



3. Select Restart the computer?, and then click Yes.
4. The server restarts.

What’s next?

Continue with Chapter 3, “Installing and configuring pcAnywhere.”

Section C: Installing the server software

In this section

Checklist for installing the server software	72
Preparing for installation	73
Installing the server software	75
Changing the NGenDist and NGenDesign passwords	90
Post-installation tasks	93

Checklist for installing the server software

Step		✔
1	Complete the worksheets in Appendix A, “Worksheets.”	
2	Prepare for installation (see page 26).	
3	Install the DMI (see page 75).	
4	Install the Symposium Call Center Server software on the server (see page 77).	
5	Install the Symposium Call Center Server software on the client PC (see Chapter 5, “Installing the client software”).	
6	Finish the server software installation (see page 88).	
7	Install PEPs (see “Overview” on page 116).	
8	Create a database backup (see Chapter 11, “Backing up data”).	
9	Change the default NGenDist and NGenDesign passwords (see page 90).	
10	Complete the post-installation tasks (see page 93).	

Preparing for installation

Introduction

This section lists tasks that must be completed before installing the server software.

Check for Installation Addendums

Before performing an installation, check for any Installation Addendums on your regional Symposium Call Center Server technical web site. North American customers refer to the web site at www.nortel-sccs.com. European customers refer to the Symposium Call Center Server area on the web site at www.nortelnetworks.com/nic.

Be aware of the steps in the installation checklist

See “Checklist for installing the server software” on page 72.

Decide whether to configure the server while it is offline from the switch

At the end of the installation, the server goes into configuration mode. In configuration mode, the server is offline from the switch, so it does not process calls. This allows you to configure the server more efficiently.

For DMS/MSL-100 systems, ensure that the dongle is attached properly

The Symposium Call Center Server installation package includes a dongle. This device verifies that you have the software package that was purchased for this system. You can set up and test Symposium Call Center Server without the dongle. However, before you connect to the switch to go live, you must ensure that the dongle is attached to the parallel port on the back of the server. Without the dongle, the switch and the server cannot communicate.

ATTENTION

The dongle must match the serial number of the Symposium Call Center Server.

Check the location of the mapped CD-ROM drive

If you are installing the software from a mapped CD-ROM drive, ensure that the drive is on a local network, not across a WAN or dial-up connection. After some restarts, you must remap the drive.

Note: This method is not recommended, as network traffic can interfere with proper installation.

Uninstall third-party software

Nortel Networks recommends that you do not install third-party software on a Symposium Call Center Server. This can compromise system performance.

Running Setup from the Explorer window

If you run setup.exe from a window (for example, Windows Explorer), the window can appear on top and hide the installation windows. If this happens, minimize the Explorer window or click on the main installation window to regain focus. To avoid this problem, the procedure instructs you to close all windows and run setup from the Run dialog box.

Installing the server software

Introduction

This section provides instructions for installing the server software.

ATTENTION

During the installation, there are points where the setup program performs automatic installation steps between wizard setup windows. Do not close any windows that appear during these steps. Wait for the next wizard setup window before you use the mouse or keyboard.

If you abort the installation, you must uninstall all components and then restart the installation.

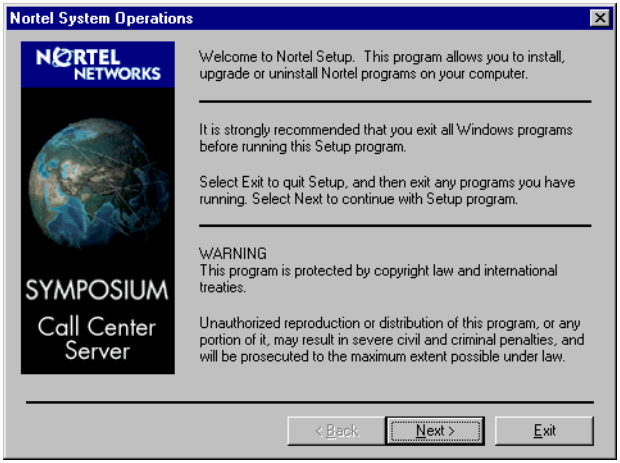
To install DMI

1. Insert the Server CD or, if you are installing from a remote CD or a network share drive, map the Server CD to a drive letter on the server.
2. Log on to Windows NT as Administrator.
3. Exit all applications, including screen savers, and close all windows.
4. From the Windows Start menu, choose Run.
5. Click Browse, select Setup.exe from the root directory on the CD, and click Open.
6. Click OK to run.

   Result: The program displays the message `Setup determines that DMI is not installed on your system. Do you want Setup to install DMI?`

7 Click Yes to install the DMI. (If you click No, the installation stops.)

Result: The program installs the DMI and the Nortel System Operations welcome dialog box appears.


Nortel System Operations
NORTEL NETWORKS
SYMPOSIUM
Call Center Server
Welcome to Nortel Setup. This program allows you to install, upgrade or uninstall Nortel programs on your computer.
It is strongly recommended that you exit all Windows programs before running this Setup program.
Select Exit to quit Setup, and then exit any programs you have running. Select Next to continue with Setup program.
WARNING
This program is protected by copyright law and international treaties.
Unauthorized reproduction or distribution of this program, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under law.
< Back
Next >
Exit

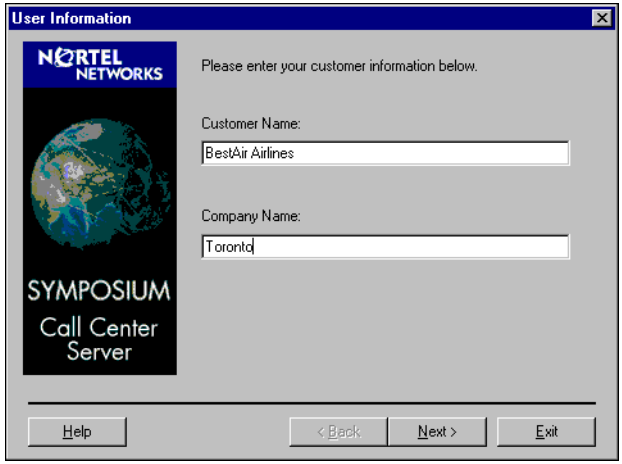
8 Click Next.

Result: The Setup Choices dialog box appears.

9 Click Install/Upgrade.

Note: If a warning message appears because drive D has less than 64 Mbytes free, click Yes to continue.

Result: Setup copies files to the server, and then the User Information dialog box appears.



10 Enter the customer and company names, as recorded in Appendix A, “Worksheets,” and then click Next.

Result: The program installs the software and displays the message `Setup is about to reboot the system. Please continue installation after reboot.`

11 Click OK.

Result: The system restarts and logs on again automatically.

To install the Symposium Call Center Server software

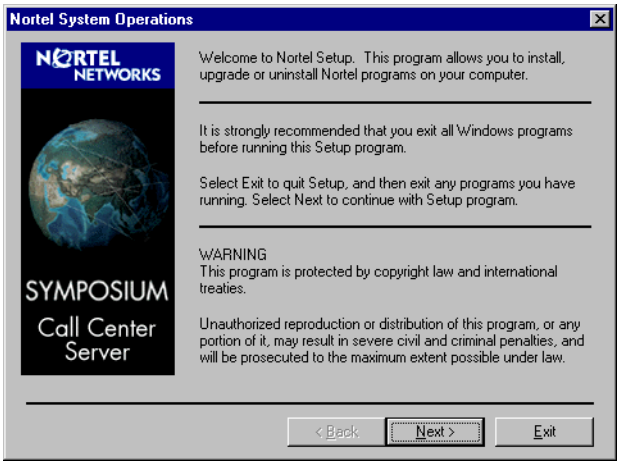
1 Exit all applications, including screen savers, and close all windows.

2 From the Windows Start menu, choose Run.

3 Click Browse, select Setup.exe from the root directory on the CD, and click Open.

4 Click OK to run.

Result: The Nortel System Operations welcome dialog box appears.


Nortel System Operations
NORTEL NETWORKS
SYMPOSIUM
Call Center Server
Welcome to Nortel Setup. This program allows you to install, upgrade or uninstall Nortel programs on your computer.
It is strongly recommended that you exit all Windows programs before running this Setup program.
Select Exit to quit Setup, and then exit any programs you have running. Select Next to continue with Setup program.
WARNING
This program is protected by copyright law and international treaties.
Unauthorized reproduction or distribution of this program, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under law.
< Back
Next >
Exit

5 Click Next.

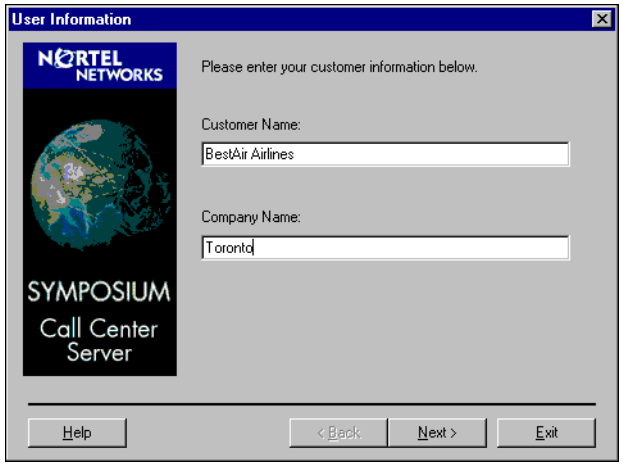
Result: The Setup Choices dialog box appears.

6 Click Install/Upgrade.

Note: If the following message appears, then click Yes to continue:

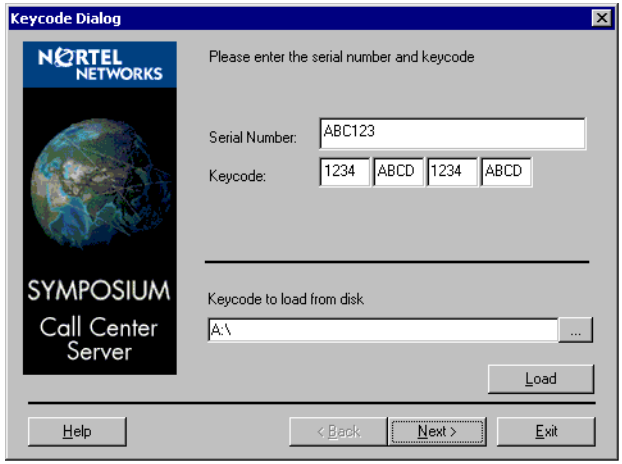
```
Setup has found out that this drive “C:\” has less than
64 Mbytes of free space. Do you still want to continue?”
```

Result: Setup copies files to the server, and then the User Information dialog box appears.



7 Ensure that the customer and company names are correct, and then click Next.

Result: The Symposium Call Center Server software installs and the Validation dialog box appears. Then the Keycode Dialog dialog box appears.



8 Enter your keycode in one of the following ways, and then click Next:

- If you have a disk that contains your keycode information, follow these steps:

  a. Insert the keycode disk into the floppy drive.

  b. Click the (...) button to open a browse dialog box.

  c. Locate and select the file that contains the keycode information and click Load.

  Result: The keycode and serial numbers are entered into the Keycode Dialog box.

- If your keycode information is stored on a hard disk, follow these steps:

  a. Click the (...) button to open a browse dialog box.

  b. Locate and select the file that contains the keycode information and click Load.

  Result: The keycode and serial number are entered into the Keycode Dialog box.

- Type your serial and keycode numbers in the appropriate boxes.

Note: The serial number is used in generation of the keycode. Make sure you enter the correct keycode for the serial number you enter.

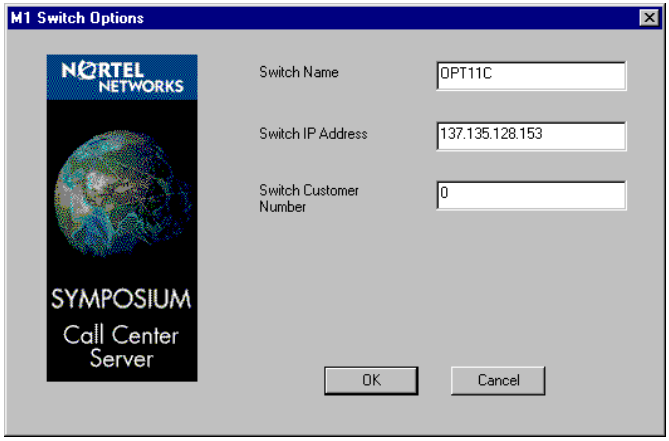
Result: The Verify Keycode Information dialog box appears.

9 Check that all keycode information is correct. If it is not correct, then click Back to change it (go to step 8). Otherwise, click Next.

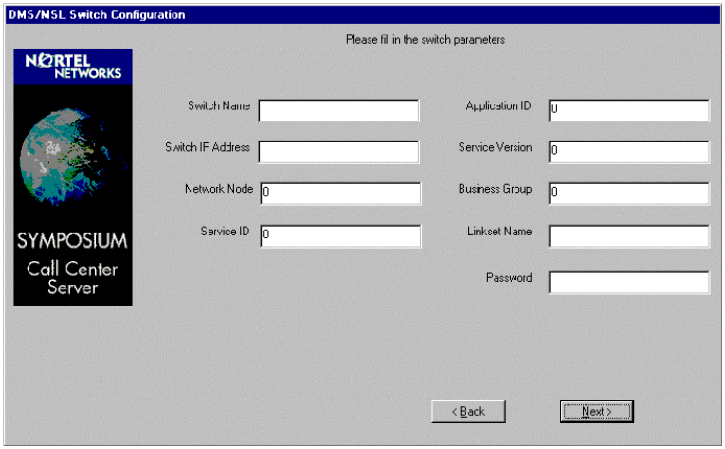
Result: Based on the system type that you are installing, one of the following switch information dialog boxes appears.

Note: If you are installing a Network Control Center (NCC) server, a switch information dialog box does not appear.

M1 Switch Options dialog box



DMS/MSL Switch Configuration dialog box



10 Enter the appropriate information for your switch and click Next. Refer to the information you entered in Appendix A, “Worksheets.”

Note: The following restrictions apply to switch names:

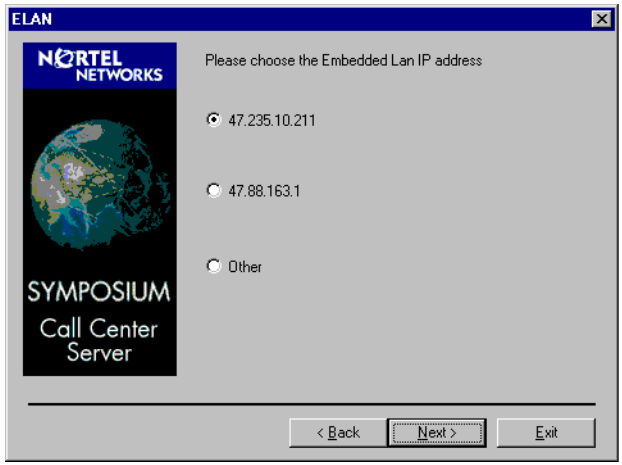
ATTENTION

For a DMS/MSL-100 switch, the Linkset Name *must* be entered in uppercase only.

- Valid characters for switch names are A–Z, a–z, 0–9, _ (underscore) and . (period).
- Switch names must begin with an alphabetic character and cannot contain spaces.
- The last character must not be an underscore or a period.
- Switch names must not exceed 80 characters in length.

Tip: If you are unsure of the correct information or if you make a mistake, you can change the switch information after you finish the installation (see “Feature Report” on page 453).

Result: The ELAN dialog box appears.



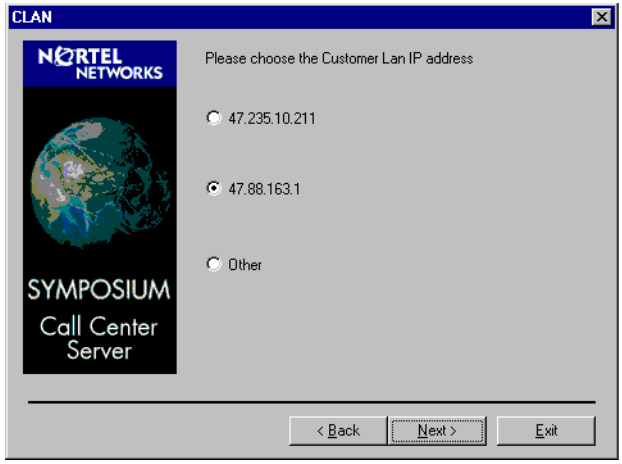
11 Enter the ELAN TCP/IP address for the server in one of the following ways:

- If the address appears in the dialog box, select it and click Next.
- If the ELAN TCP/IP address does not appear in the dialog box, select Other, enter the correct IP address in the dialog box that appears, and then click Next.
- If you are configuring a Network Control Center server, you do not need to connect the ELAN network interface card to the ELAN cable. However, to ensure proper functionality, enter an IP address for the ELAN network interface card that is not used elsewhere in the network.

ATTENTION

If your NCC server has only one network interface card, enter the CLAN address for both the ELAN prompt and the CLAN prompt.

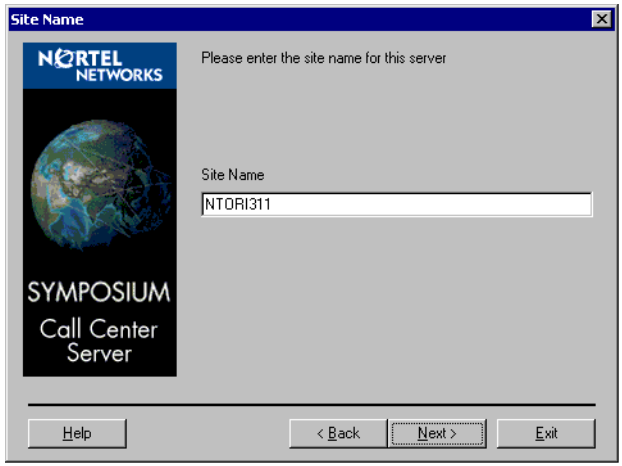
Result: The CLAN dialog box appears.



12 Enter the CLAN TCP/IP address for the server in one of the following ways:

- If the address appears in the dialog box, select it and click Next.
- If the CLAN TCP/IP address does not appear in the dialog box, select Other, enter the correct IP address in the dialog box that appears, and then click Next.

Result: The Site Name dialog box appears.

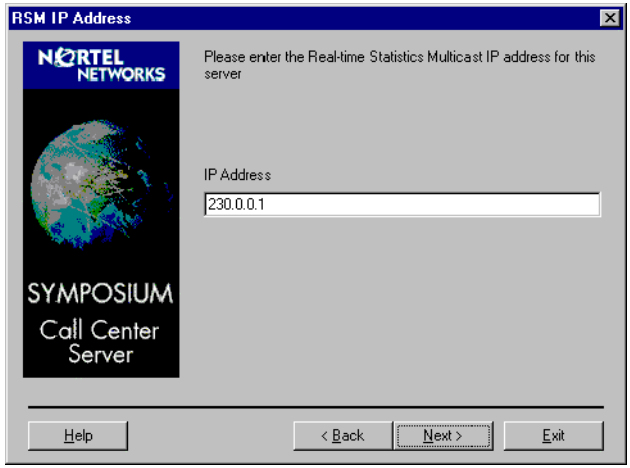


13 Enter a site name for the server and click Next. Refer to the information you entered in Appendix A, “Worksheets.”

Tip: The site name must be unique and can consist of any combination of up to 21 characters. Do not use the backslash (\) character.

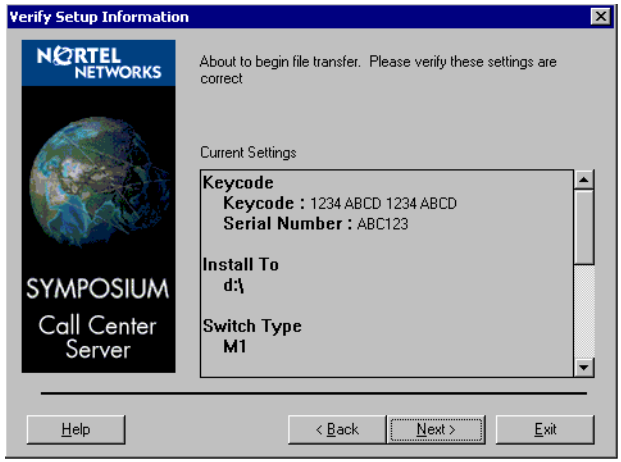
Result: If the optional RSM feature is

- enabled for your server, the RSM IP Address dialog box appears. Continue with the following step.
- not enabled, the Verify Setup Information dialog box appears. Skip to step 15.



14 Enter the IP address of the RSM server (the server to which the servers in your network send real-time statistics), and click Next.

Result: The Verify Setup Information dialog box appears, similar to the following example:

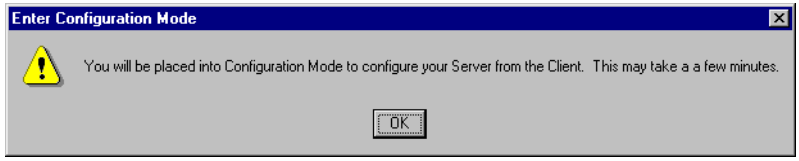


15 Examine the list of current settings. If they are incorrect, click Back and make the necessary corrections. Otherwise, click Next.

Result: The program installs files to the hard disk drive and initializes the database.

Note: Initializing the database files can take from one to three hours, depending on the size of your hard disk.

When this step is completed, the Enter Configuration Mode message appears.


Enter Configuration Mode
You will be placed into Configuration Mode to configure your Server from the Client. This may take a a few minutes.
OK

16 Click OK.

Result: The setup program validates scripts and puts the server into configuration mode.

ATTENTION

Do not click OK at this time.

Note: Configuration Mode shuts down certain services, thus taking the server offline from the switch. This mode enables you to configure the server before allowing outside calls to access the server. If you do not need to configure the server at this time, click OK to continue the server installation and continue with step 2 on page 88.

To install the client and configure the server

1. At the client PC, install the Symposium Call Center Server client software (see Chapter 5, “Installing the client software”).
2. Add an SMI system (see “Adding an SMI system” on page 159).
3. Configure the server from the client while the server is still in Configuration Mode.

Note: Nortel Networks recommends that you configure the server while it is offline from the switch. If you do not want to configure the server while it is offline, you can configure it after you finish the server software installation.

To complete the server installation

1 Return to the server PC and click OK.

Result: The program prompts, `In order to recover the Symposium Call Center Server from catastrophic failure or to migrate to a different platform using the database tape, the Platform Recovery disk must be available....`

2 Click Yes.

Note: If you click No, the program prompts, `You have selected not to create the Platform Recovery disk at this time....` Remember to use the Migration utility to create a Platform Recovery disk when the installation is complete. Skip to step 5.

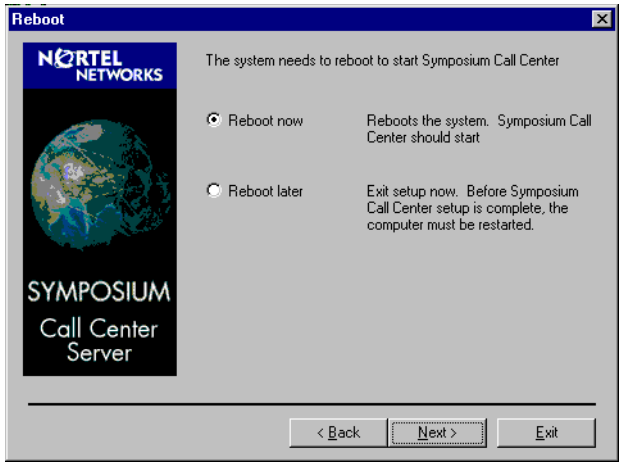
Result: The program prompts, `Label a floppy disk "Platform Recovery Disk" and insert it into drive A:.`

3 Insert a blank formatted disk in the floppy drive, and click Yes.

Result: The program prompts, `The Platform Recovery disk has been successfully created....`

4 Click OK, remove the disk, and store it in a safe place.

Result: The Reboot dialog box appears.


Reboot
NORTEL NETWORKS
The system needs to reboot to start Symposium Call Center
Reboot now
Reboots the system. Symposium Call Center should start
Reboot later
Exit setup now. Before Symposium Call Center setup is complete, the computer must be restarted.
SYMPOSIUM
Call Center Server
< Back
Next >
Exit

5 Select Reboot now, and then click Next.

6 After the server restarts, press Ctrl+Alt+Delete to log on.

7 Log on as NGenSys.

Result: The SMonW window appears and Symposium Call Center Server services begin the startup process. The services take approximately 15 to 20 minutes to start up. For more information about the services and their statuses, see “Troubleshooting problems with Symposium Call Center Server services” on page 493.

The server software is now installed.

Checking for PEPs and Service Update packs

Extract and install the latest available software PEPs and Service Update packs now. For more information, see “Overview” on page 116.

Backing up the server

Create full, database, and (if applicable) RAID backups of the server. For detailed instructions, refer to Chapter 11, “Backing up data.”

What’s next?

Continue with “Changing the NGenDist and NGenDesign passwords” on page 90.

Changing the NGenDist and NGenDesign passwords

Introduction

NGenDist and NGenDesign are Windows NT remote access accounts that enable the distributor or Nortel Networks Customer Support to remotely log on to the server if requested by the customer. These accounts are created during the server software installation. To ensure server security, change the NGenDist and NGenDesign passwords.

To assign new passwords, you do not need to know the default passwords for NGenDist and NGenDesign.

Password security

Write down the new passwords you create, and store them in a safe, secure place away from the server. Give the passwords only to those who need them.

To change the NGenDist and NGenDesign passwords

Note: You are not required to change the NGenSys password. If you change the NGenSys password, you must apply the same password change to the MAS Backup/Restore service (see the following procedure).

1 Log on to Windows NT as NGenSys.

2 From the Windows Start menu, choose Programs → Administrative Tools (Common) → User Manager for Domains.

Result: The User Manager window displays a list of available user accounts, including NGenDist and NGenDesign.

3 Double-click the NGenDist icon.

Result: The User Properties property page appears.

4 In the Password box, type the new password. Ensure that you use a password that contains a combination of numbers and letters (see “Password format” on page 284).

5 In the Confirm Password box, type the same password entered in the Password box.

6 Click OK to close the User Properties property page.

7 Repeat steps 3 to 6 for NGenDesign.

8 Select Exit to save changes.

9 Record these passwords and store them in a secure place, away from the server.

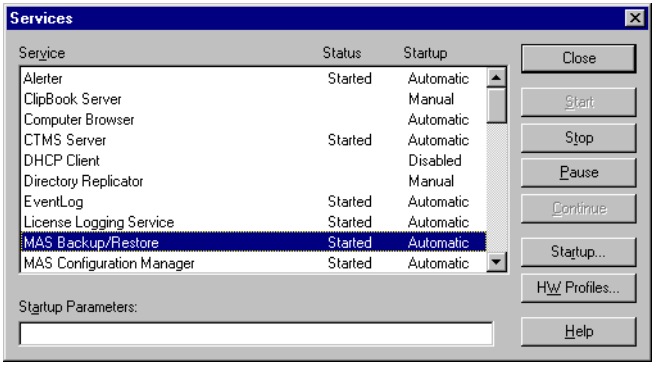
To change the NGenSys password for MAS Backup/Restore service

Note: Complete this procedure only if you change the Windows NT user account password for NGenSys.

1 From the Windows Start menu, choose Settings → Control Panel.

2 Double-click Services.

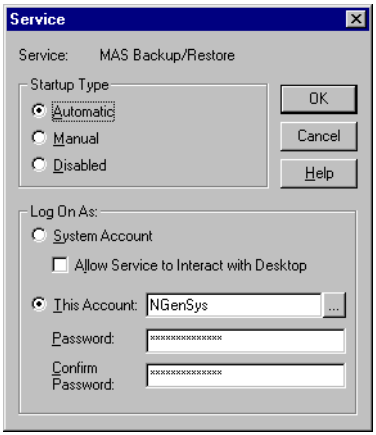
Result: The Services dialog box appears.



3 Scroll to MAS Backup/Restore service, and then select it.

4 Click Startup.

Result: The Service dialog box appears.



5 In the Log On As section, fill in the Password and Confirm Password boxes with the current NGenSys password. Use the same password that you assigned to NGenSys in “To change the NGenDist and NGenDesign passwords” on page 90.

What’s next?

Continue with “Post-installation tasks” on page 93.

Post-installation tasks

To verify the success of the installation

On the server PC

1. Log on to Windows NT as NGenSys.
2. Check that all Symposium Call Center Server services are running. Restore the SMonW window from the TaskBar and check that all services are in the UP state.

   Note: It can take 15 minutes or more for the system to come up and for all of the services to start. If all services do not start, refer to “Troubleshooting problems with Symposium Call Center Server services” on page 493.
3. Check the Windows NT Event Viewer again to be sure that no errors occurred during the restart.

On the client PC

After a successful installation, log on from a client PC and verify that the historical statistics match the installed disk space and customer requirements.

To update the emergency repair disk

After you make changes to the server, update the emergency repair disk to record the latest configuration data. Follow the instructions in “Updating the emergency repair disk” on page 65.

To enable RSM (optional)

If you installed RSM on your server, you must enable the RSM service to provide moving window and interval-to-date statistics for multicast real-time displays. For instructions on enabling RSM, see “Modifying Real-time Statistics Multicast settings” on page 471.

Configuring SNMP (optional)

If you are using the Windows NT SNMP service to forward traps to an NMS, you must perform these tasks:

- Configure the Windows NT SNMP service on the server (see “To configure the Windows NT SNMP service to forward traps to an NMS” on page 305).
- Select the types of events to be forwarded to the NMS (see “To select the types of events to be forwarded” on page 306).
- Configure the NMS (see “Configuring the NMS” on page 307).

Chapter 3

Installing and configuring pcAnywhere

In this chapter

Overview	96
Installing pcAnywhere version 9.2	97
Configuring pcAnywhere	100
Changing pcAnywhere caller passwords	109
Establishing a pcAnywhere connection using dial-up	111
Uninstalling pcAnywhere 9.2	113

Overview

Introduction

With pcAnywhere, you can perform advanced administrative tasks on the server from a remote PC and control the server as though you were directly connected to the server.

Notes:

1. Remote access is required to allow your distributor or Nortel Networks Customer Support to log on to your server remotely to provide support.
2. Install pcAnywhere before installing the server software.

Installing pcAnywhere version 9.2

Introduction

One licensed copy of pcAnywhere Version 9.2 is provided for the server on the Symposium Call Center Server Release 4.0 Platform Support CD Version 1.0. pcAnywhere is installed for Nortel Networks Support Services at the factory, but you must verify its configuration.

Notes:

1. To install pcAnywhere Version 9.2 on the client PC, you must purchase a separate license for the client PC.
2. Install pcAnywhere before installing the server software.

CAUTION

Risk of system failure

Before you install pcAnywhere version 9.2, make sure that the server PC is using the correct video driver (see “To change the video drivers” on page 206). Failure to do so can result in the appearance of a blue screen after pcAnywhere installation or after use of pcAnywhere for operations such as file transfer.

To install pcAnywhere version 9.2

1 Log on to the server as Administrator.

Note: Before you proceed with the installation of pcAnywhere, shut down all SMON services. From the Start menu choose Programs → Symposium Call Center Server → Shutdown.

2 Insert the Symposium Call Center Server Release 4.0 Platform Support CD Version 1.0 into the CD-ROM drive.

3 In Windows NT Explorer, browse to E:\Third Party\Symantec\Installs\Pca9.2\CD\Disk1 (where E: is your CD-ROM drive).

4 Double-click Setup.exe.

Result: The Symantec installation wizard window appears.

5 Click Next.

Result: The License agreement appears.

6 Select I accept the terms, and then click Next.

Result: The Customer Information window appears.

7 Enter your User Name and Organization, and then click Next.

Result: The Setup Type window appears.

8 Select Typical and click Next.

Result: The Ready to install the program window appears.

9 Click Install and wait until Setup wizard completes.

Result: The Support Solutions window appears.

10 Click Next.

Result: The Windows solutions window appears.

11 Click Next.

Result: The How to reach Symantec Online Information window appears.

12 Click Next.

Result: The Some Additional Options window appears.

13 Clear all check boxes, and then click Next.

Result: The Registration window for pcAnywhere appears.

14 Click Skip.

Result: The program prompts for confirmation.

15 Click Yes.

Result: The following message appears: `Symantec pcAnywhere successfully installed`.

16 Click Finish.

Result: You are prompted to restart the server PC.

17 If you are using a 1003t or other multi-processor platform, do not restart the server PC, but continue with the following procedure, “To update the Windows registry (1003t and other multi-processor platforms).”

18 If you are using a 1000t, 1001t, 701t, or 702t platform, remove the CD from the CD-ROM drive, and click Yes to restart the server.

Result: The server PC restarts. If the server hangs, restart it manually.

To update the Windows registry (1003t and other multi-processor platforms)

To avoid problems during pcAnywhere operation on multi-processor systems, you must add an entry in the Windows registry under pcAnywhere software.

1 Click No to restart the server PC later.

2 In the Windows NT Explorer, navigate to the folder E:Third Party\Symantec\Installs\MultiProc (where E: is your CD-ROM drive).

3 Double-click AddProcMask.reg.

Result: A message informs you that the information in the file has been successfully entered into the registry.

4 Click OK and remove the CD from CD-ROM drive.

5 From the Windows Start menu, choose Shutdown.

Result: The Shut Down Windows dialog box appears.

6 Select Restart, and then click Yes.

Result: The server PC restarts. If the server hangs, restart it manually.

Configuring pcAnywhere

Introduction

This section describes how to configure pcAnywhere to accept remote connections. pcAnywhere might already be configured when you first receive your server. If so, then go through the procedures to ensure that the network properties and remote caller settings are correct. Then go to “Changing pcAnywhere caller passwords” on page 109.

Configuring the network settings and remote PC caller accounts

The procedure in this section (see page 102) defines the NGenDist and NGenDesign user accounts and passwords for remote users logging on to the server using pcAnywhere. This ensures that only authorized users can administer the server using pcAnywhere. The procedure also specifies how to set up the pcAnywhere network properties to enable these remote PC callers to access the server.

Password recommendations

Plan the passwords you want to use for NGenDist and NGenDesign (see “Password format” on page 284). Use the same passwords for the pcAnywhere NGenDist and NGenDesign caller passwords that you plan to use for the Windows NT NGenDist and NGenDesign accounts. This simplifies the remote logon process.

To maintain remote access security, change the passwords for the NGenDist and NGenDesign caller accounts regularly. Continue to match the pcAnywhere caller passwords for NGenDist and NGenDesign to the Windows NT user account passwords for NGenDist and NGenDesign.

To start pcAnywhere for the first time

1 Log on to Windows NT as Administrator.

2 From the Windows Start menu choose Programs → Symantec pcAnywhere.

Note: If you are asked to register pcAnywhere, select Skip, and then choose Yes when asked to confirm.

Result: The Smart Setup Wizard window appears. The system prompts you for the modem device.

3 Choose the entry that matches your modem, and then click Next.

Result: The system prompts you to select the network device.

4 Ensure that only TCP/IP is selected, and then click Next.

Result: The system prompts you to select a port.

5 Select COM1, and then click Next.

6 Click Finish.

Result: You are placed into the pcAnywhere main window.

Configuring pcAnywhere

Configuration of pcAnywhere sets up a secure caller account to access the server. You can add a caller account for each remote PC. These caller accounts restrict usage of pcAnywhere to appropriate users (for example Nortel Networks support personnel and distributors).

Note: If during pcAnywhere configuration, you get a message indicating that you do not have the rights to modify a setting or create a new caller, follow the procedure below to change the Windows NT User access rights for pcAnywhere files.

1 Exit pcAnywhere.

2 Navigate to %Systemroot%Profiles\All Users\Application Data\Symantec.

Note: %Systemroot% is the Winnt35 directory if your OS was upgraded from Windows NT 3.51 to Windows NT 4. Otherwise, %Systemroot% is the Winnt directory.

3 Select the pcAnywhere directory.

4 Right-click the directory icon, choose Properties, and then click the Security tab.

5 Click on Permissions and, for Administrators, select Type of Access: Full Control.

6 Click OK to save changes.

7 Click OK to close the Properties window.

To set the video mode

1 In pcAnywhere, choose Tools → Application Options.

2 Click the Host Operation tab.

3 For Video mode, ensure that the option selected in the drop-down list is Default.

4 Click Apply to save the changes.

5 Click OK to exit.

To configure pcAnywhere as a Host PC

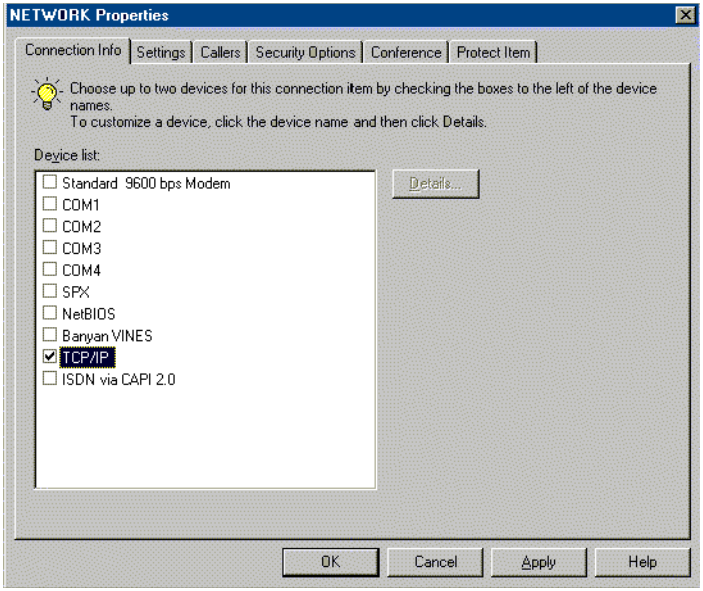
1 Select Be a Host PC.

2 Right-click on the Network icon, and then choose Properties.

Result: The Network Properties property sheet appears.

3 Click the Connection Info tab.

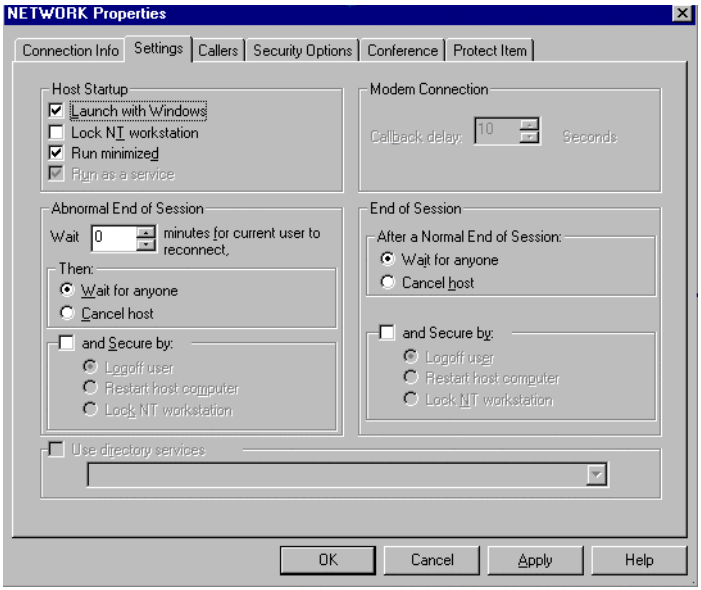
4 Ensure that only TCP/IP is checked, as in the following example:



5 Click Apply to save changes.

6 Click the Settings tab.

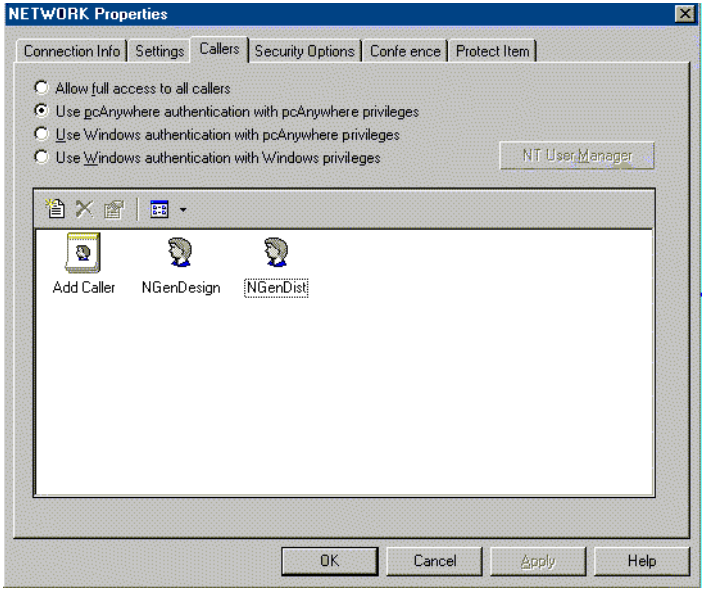
7 Ensure that the settings are as shown in the following example:



8 Click Apply to save changes.

9 Click the Callers tab.

10 Select Use pcAnywhere authentication with pcAnywhere privileges.



Note: If the NGenDist and NGenDesign caller icons have already been created, then skip to step 18.

11 Place the mouse in the blank area and right-click, and then select New to add a new caller.

Result: The New Caller Properties window appears.

12 Type the Login name **NGenDist** and the password **ntdist**.

13 In the Confirm Password box, type the **ntdist** password again.

14 Click OK to save the changes.

Result: You are returned to the Callers Tab.

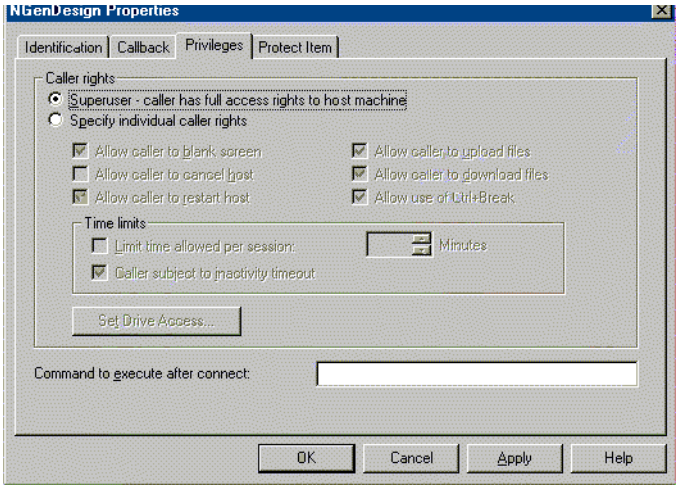
15 Right-click the NewCaller icon, select rename, and then type **NGenDist**.

16 Repeat steps 11 to 15 for the NGenDesign account, using the password **Nortel**.

17 Right-click the NGenDesign caller icon, and then select Properties.

18 Click the Privileges tab.

19 Select Superuser, as shown in the following example:



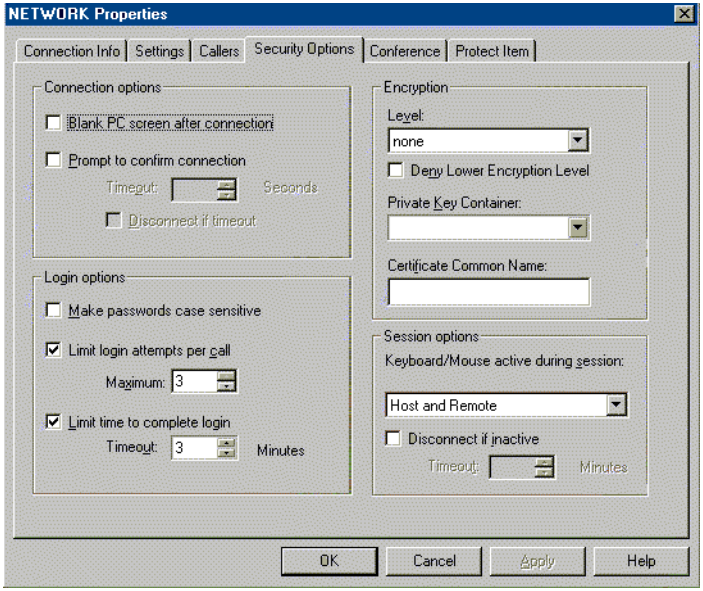
20 Click Apply to save the changes.

21 Click OK to exit the Properties window.

Result: The NETWORK Properties property sheet appears.

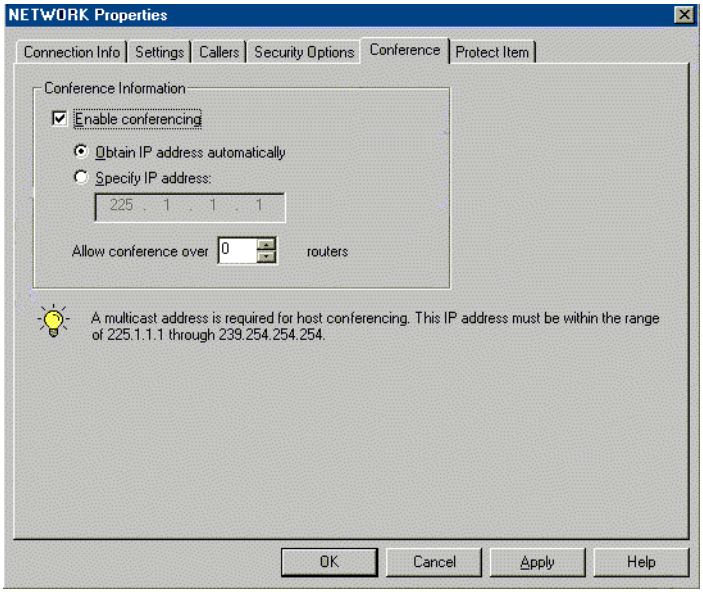
22 Click the Security Options tab.

23 Ensure that the settings are as shown in the following example:



24 Click the Conference tab.

25 Ensure that Enable conferencing and Obtain IP address automatically are selected, as shown in the following example:



26 Click the Protect Item tab.

Note: If you want to assign a password to control who can modify the Network icon settings, then enter a password on this screen.

ATTENTION

If you select the option Required to modify properties, you must enter the password each time a setting is changed. You should record the password and keep a copy of it in a safe place. If you forget the password, you can not change any settings.

27 Click OK to apply all pcAnywhere Host PC settings.

Changing pcAnywhere caller passwords

Introduction

During the installation and configuration of pcAnywhere, you specify logon passwords for the NGenDist and NGenDesign callers. To maintain system security, change these passwords periodically.

Note: To simplify the remote logon process, use the same passwords for the pcAnywhere NGenDist and NGenDesign caller passwords that you plan to use for the Windows NT NGenDist and NGenDesign accounts. Change the pcAnywhere caller passwords and the Windows NT user account passwords for NGenDist and NGenDesign at the same time.

To change passwords

1. Log on to Windows NT as Administrator.
2. From the Windows Start menu, choose Programs → Symantec pcAnywhere.

   Result: pcAnywhere starts.
3. Select Be a Host PC.
4. Click Network.

   Note: Do not double-click the icon or you will begin a pcAnywhere session.
5. From the File menu, choose Properties.

   Result: The NETWORK Properties property sheet appears.
6. Click the Callers tab.
7. Click Specify individual caller privileges.
8. Right-click the NGenDist icon. Then select Properties.
9. Click the Identification tab.
10. In the Password box, type a new NGenDist password.
11. In the Confirm Password box, type the NGenDist password again.
12. Click Apply.

13 Click OK.

14 Right-click the NGenDesign icon. Then select Properties.

15 Repeat steps 8 to 13 to assign a new password to NGenDesign.

16 Click OK to return to the main pcAnywhere window.

17 Exit pcAnywhere.

Establishing a pcAnywhere connection using dial-up

Introduction

This section describes how to establish a pcAnywhere connection with the server using a dial-up connection.

To create a server connection profile (for Windows 95 or 98 client PC)

1. From the Windows Start menu, choose Programs → Accessories → Dial-Up Networking or Programs → Accessories → Communication → Dial-Up Networking.

   Result: If no connections have been defined on this PC, the Make New Connection wizard appears.

   If one or more connections have been created on this PC, click the Make New Connection icon in the Dial-Up Networking window to display the wizard.
2. Enter a name for the connection and select a modem.
3. Click Next.
4. Enter the server telephone number, and then click Next.
5. Click Finish.
6. Continue with the following procedure.

To configure a connection profile

1. Right-click on the server connection profile icon, and then select Properties.
2. Verify the information on the General property page, and correct it if necessary.
3. Click Configure.

   Result: The Modem Properties property sheet appears.
4. Update the property pages as required, and then click OK.

   Result: You return to the connection property sheet.

5 Click Server Types.

6 For Dial-Up Server, select PPP:Windows NT.

7 For the network protocols, select only TCP/IP and NETBEUI.

8 Click TCP/IP settings.

Result: The TCP/IP Settings property sheet appears.

9 Select Specify an IP address, and type the server IP address.

10 De-select Use default gateway on remote network.

11 The remaining boxes are optional. Fill them in as required for the customer's network.

12 Click OK.

Result: You return to the connection property sheet.

13 Click OK.

What's next?

Continue with Section C: "Installing the server software" on page 71.

Uninstalling pcAnywhere 9.2

Uninstalling pcAnywhere 9.2

Follow this procedure if you experience problems with pcAnywhere that require reinstallation of the software. For more information, see "Troubleshooting installation problems" on page 484.

Note: Before uninstalling pcAnywhere, ensure there is no pcAnywhere Waiting icon on your desktop. If the icon is on your desktop, right-click it and select Cancel Host.

1. From the Windows Start menu, choose Settings → Control Panel.
2. Double-click Add/Remove Programs.
3. Select Symantec pcAnywhere and click Add/Remove.

   Result: The Symantec pcAnywhere Setup window appears.
4. Click Next.

   Result: The Program Maintenance options window appears.
5. Select Remove and click Next.

   Result: The Remove the Program window appears.
6. Click Remove.
7. When the process completes, click Finish.
8. From the Windows Start menu, choose Shutdown.

   Result: The Shut Down Windows dialog box appears.
9. Select Restart, and then click Yes.

   Result: The server shuts down and then begins starting up.

   Note: If the system does not restart, you must restart it manually.

Chapter 4

Installing and uninstalling PEPs

In this chapter

Overview 116
Section A: Installing/uninstalling server PEPs and Service Update packs 119
Section B: Installing/uninstalling client PEPs and Service Update packs 123

Overview

Product Enhancement Packages (PEPs) are small software updates that are installed on the Symposium Call Center Server or client. PEPs contain product enhancements and bug fixes and are required to ensure smooth operation of your system.

Periodically individual PEPs are consolidated into Service Update packs or "super PEPs." Service Update packs are installed in the same way as PEPs, although they can take longer to download because they are larger. There are normally two service update packs: one for the client and one for the server.

When you install the software (or upgrade to a new version), you should install the latest service update pack on the server and on the client. If no service update pack is available, check with your Nortel Networks Customer Support representative

PEPs and Service Updates are available on the Symposium Call Center Server 4.0 Supplementary CD shipped with your software and from your Nortel Networks Customer Support representative.

ATTENTION

Before installing any software PEP or Service Update pack, you should perform a full third-party utility backup of the server. Then shut down any services running on the server. If the PEP or Service Update pack does not install successfully, uninstall the PEP or Service Update pack.

Before proceding with any backup or restore operation, refer to Chapter 11, "Backing up data," Chapter 12, "Restoring data," or required third-party documentation.

Before you begin

If you are not installing PEPs from a CD, download them from your regional Symposium Call Center Server PEP web site. North American customers refer to the web site at www.nortel-sccs.com. European customers refer to the Symposium Call Center Server area on the web site at www21.nortelnetworks.com/TSC_EUROPE.

Section A: Installing/uninstalling server PEPs and Service Update packs

In this section

Installing PEPs or Service Update packs on the server 120

Uninstalling PEPs or Service Update packs from the server 122

Installing PEPs or Service Update packs on the server

To install PEPs or Service Update packs on the server

Notes:

- If your server is a RAID system, you can split the RAID drives before installing the PEPs or Service Update packs. After installing the PEPs or Service Update packs, allow the server to run in split mode until you are confident that the procedure was successful. Then rebuild the RAID drives.
- If you are performing a conversion or upgrade and you have already split the RAID drives, do not rebuild the RAID drives until the conversion or upgrade process is finished.

1 Log on to Windows NT as NGenSys.

2 Shut down all applications, including screen savers.

3 If you are installing PEPs from a CD, insert the Supplementary CD into the CD-ROM drive.

4 Locate the PEP directory on the CD, or the directory into which you downloaded the PEPs.

Example: For the PEP named NS040101G001S, the path might be E:\04.01.01\PEPs\NS040101G001S, where

Code	Meaning
NS	Nortel Networks Symposium Call Center Server
040101	Build number of Symposium Call Center Server software
G	General Release (Other options include SU=Service Update, L=Limited, and R=Restricted.)
001	the PEP number
S	a server PC PEP (Other options include C=Client.)

5 Check the readme file in the PEP directory for any special instructions or dependencies before installing the PEP.

6 Double-click the file runme.exe, and then follow the screen instructions.

Result: The PEP installer wizard verifies that the PEP can be installed successfully. The PEP installer then shuts down and restarts the server.

Note: If the PEP installer detects that the PEP cannot be installed successfully, contact your Nortel Networks Customer Support representative for assistance.

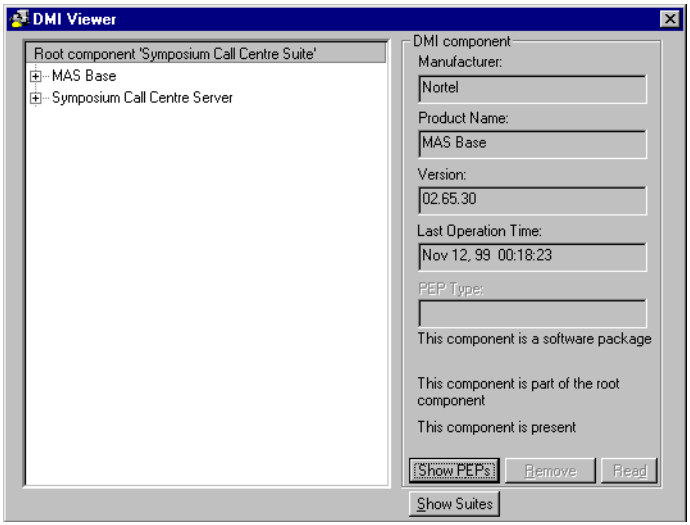
Uninstalling PEPs or Service Update packs from the server

To uninstall PEPs or Service Update (SU) packs from the server

1 Log on to Windows NT as NGenSys.

2 Start the DMI View utility by choosing, from the Windows Start menu, Programs → Symposium Call Center Server → DMI View.

Result: The DMI Viewer window appears.



3 Click Show PEPs.

4 Select the PEP you want to uninstall.

5 Click Remove.

Result: The utility removes the PEP and prompts you to restart.

6 Click OK to restart the PC.

Section B: Installing/uninstalling client PEPs and Service Update packs

In this section

Installing PEPs and Service Update packs on the client 124

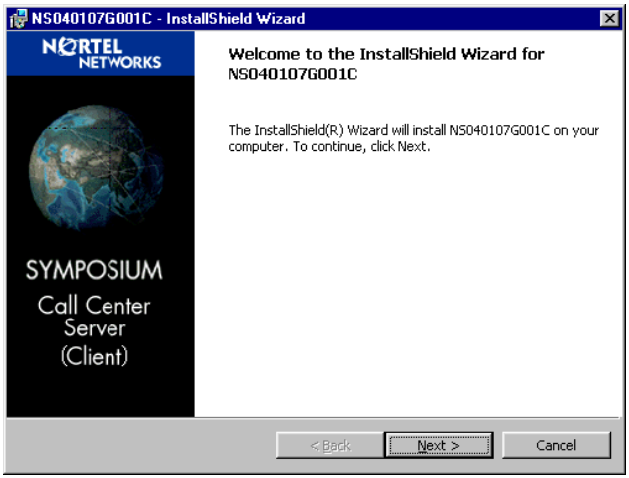
Uninstalling a PEP or Service Update pack from the client 128

Installing PEPs and Service Update packs on the client

To install a PEP on the client

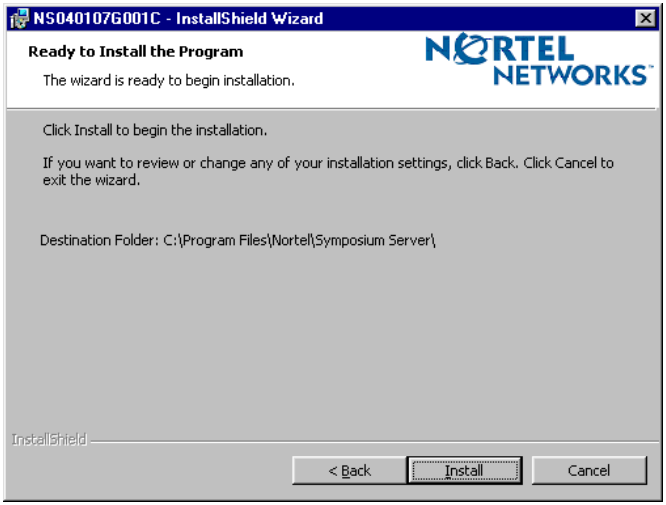
1. Before installing a PEP, ensure that you have closed all applications.
2. To install PEPs from CD-ROM, insert the Supplementary CD into the CD-ROM drive.
3. Locate the PEP directory on the CD, or the directory into which you downloaded the PEPs from the web.
4. Check the readme file in the PEP directory for any special instructions or dependencies before installing the PEP.
5. Double-click the <PEP ID>.msi file associated with the PEP.

   Result: The following screen appears:


NS040107G001C - InstallShield Wizard
NORTEL NETWORKS
SYMPOSIUM
Call Center Server (Client)
Welcome to the InstallShield Wizard for NS040107G001C
The InstallShield(R) Wizard will install NS040107G001C on your computer. To continue, click Next.
< Back
Next >
Cancel

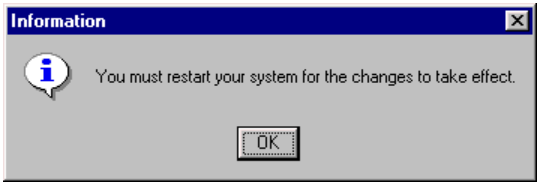
6 Click Next to proceed.

Result: The following screen appears:


NS040107G001C - InstallShield Wizard
Ready to Install the Program
The wizard is ready to begin installation.
NORTEL NETWORKS
Click Install to begin the installation.
If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard.
Destination Folder: C:\Program Files\Nortel\Symposium Server\
InstallShield
< Back
Install
Cancel

7 Click Install.

Result: The PEP is installed on the client PC, you are prompted to view the README file and then the installation completes. If a restart is required, the following screen appears:



8 After the restart or when prompted, click Finish to complete the installation.

To install a Service Update (SU) pack on the client

1 Before installing a SU pack, ensure that you have closed all applications.

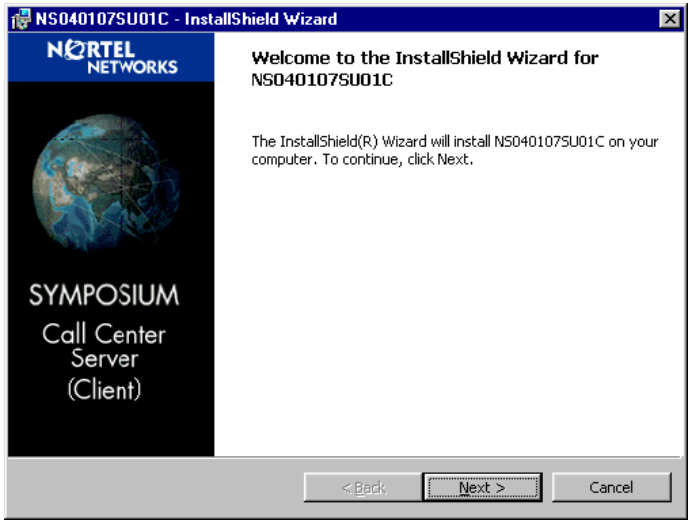
2 To install SUs from CD-ROM, insert the Supplementary CD into the CD-ROM drive.

3 Locate the SU directory on the CD, or the directory into which you downloaded the SUs from the web.

4 Check the readme file in the SU directory for any special instructions or dependencies before installing the SU.

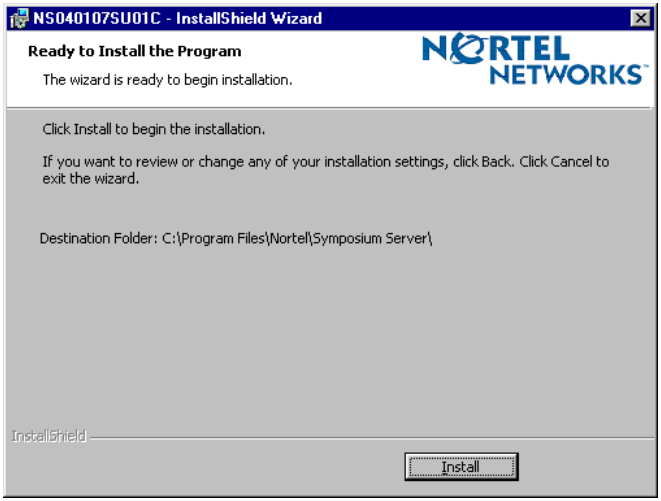
5 Double-click the <SUID>.msi file associated with the PEP.

Result: The following screen appears:


NS040107SU01C - InstallShield Wizard
NORTEL NETWORKS
SYMPOSIUM
Call Center Server (Client)
Welcome to the InstallShield Wizard for NS040107SU01C
The InstallShield(R) Wizard will install NS040107SU01C on your computer. To continue, click Next.
< Back
Next >
Cancel

6 Click Next to proceed.

Result: The following screen appears:

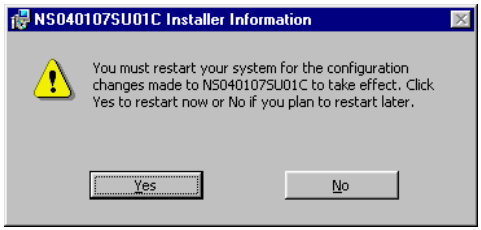

NS040107SU01C - InstallShield Wizard
Ready to Install the Program
The wizard is ready to begin installation.
NORTEL NETWORKS
Click Install to begin the installation.
If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard.
Destination Folder: C:\Program Files\Nortel\Symposium Server\
InstallShield
Install

7 Click Install.

Notes:

- If there are known Client PEPs installed on the system, the Known PEPs Found dialog box appears. To uninstall the known PEPs, click Next. (To exit the installation, click Cancel.)
- If there is an older version Client SU installed on the system, the Older Version of SU Found dialog box appears. Installing the current SU automatically uninstalls older SUs. To uninstall the older SU, click Next. (To exit the installation, click Cancel.)
- If there are known PEPs and an older version SU installed on the client, the Known SU and PEPs Found dialog box appears. To uninstall the old PEPs and SU, click Next. (To exit the installation, click Cancel.)

Result: The SU is installed on the client PC, you are prompted to view the README file and then the installation completes. If a restart is required, the following screen appears:


NS040107SU01C Installer Information
You must restart your system for the configuration changes made to NS040107SU01C to take effect. Click Yes to restart now or No if you plan to restart later.
Yes
No

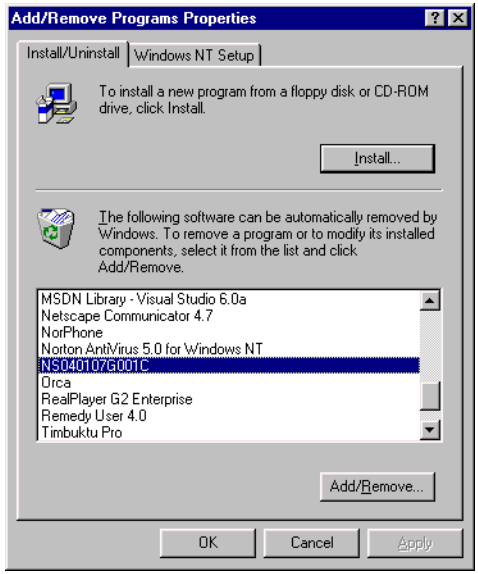
8 After the restart or when prompted, click Finish to complete the installation.

Uninstalling a PEP or Service Update pack from the client

To uninstall a PEP from the client

1 From the Windows Start menu, choose Settings → Control Panel. Double-click Add/Remove Programs.

Result: The following window appears (example for Windows NT):

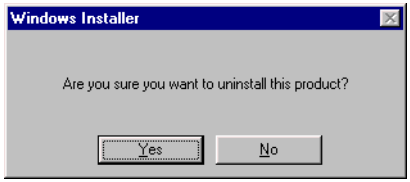

Add/Remove Programs Properties
Install/Uninstall
Windows NT Setup
To install a new program from a floppy disk or CD-ROM drive, click Install.
Install...
The following software can be automatically removed by Windows. To remove a program or to modify its installed components, select it from the list and click Add/Remove.
MSDN Library - Visual Studio 6.0a
Netscape Communicator 4.7
NorPhone
Norton AntiVirus 5.0 for Windows NT
NS040107G001C
Orca
RealPlayer G2 Enterprise
Remedy User 4.0
Timbuktu Pro
Add/Remove...
OK
Cancel
Apply

2 From the list, select the PEP that you want to uninstall.

Note: If there is more than one PEP installed, the PEPs must be uninstalled in the proper sequence (beginning with the most recent PEP) or the uninstall fails.

3 Click Add/Remove.

Result: The following window appears:



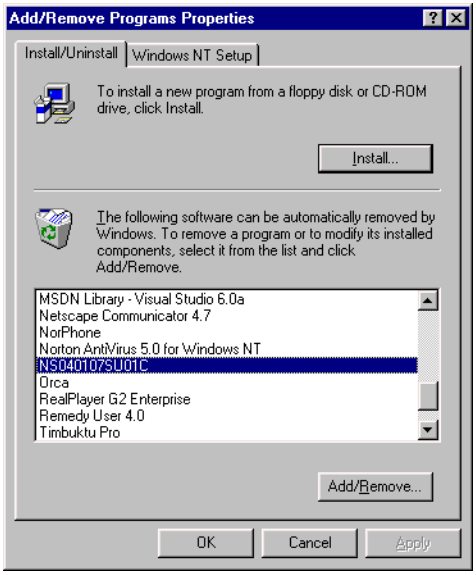
4 Click Yes.

5 The PEP is uninstalled.

To uninstall a Service Update pack from the client

1 From the Windows Start menu, choose Settings → Control Panel. Double-click Add/Remove Programs.

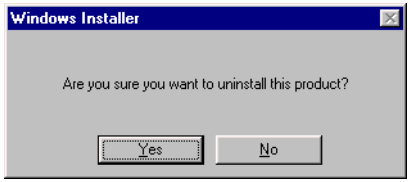
Result: The following window appears:


Add/Remove Programs Properties
Install/Uninstall
Windows NT Setup
To install a new program from a floppy disk or CD-ROM drive, click Install.
Install...
The following software can be automatically removed by Windows. To remove a program or to modify its installed components, select it from the list and click Add/Remove.
MSDN Library - Visual Studio 6.0a
Netscape Communicator 4.7
NorPhone
Norton AntiVirus 5.0 for Windows NT
NS040107SU01C
Orca
RealPlayer G2 Enterprise
Remedy User 4.0
Timbuktu Pro
Add/Remove...
OK
Cancel
Apply

2 From the list, select the SU that you want to uninstall.

3 Click Add/Remove.

Result: The following window appears:



4 Click Yes.

5 The SU is uninstalled.

Chapter 5

Installing the client software

In this chapter

Checklist for installing Symposium Call Center Server client software 132

Customer-supplied equipment and data checklist 133

Installation software checklist 135

Limitations 136

Uninstalling the Software Development Kit 138

Checking the temp directory size 140

Installing the client from the distribution CD 142

Installing the client over the network 154

Adding an SMI system 159

Testing the client-server connection 162

Installing the Software Development Kit 163

Checklist for installing Symposium Call Center Server client software

Step		✔
1	Obtain the user ID and password that you need to log on to the client PC. On a Windows NT client PC, you need an account that has local administrative privileges.	
2	Review the requirements in the checklist on page 133.	
3	Review the limitations on page 136.	
4	Uninstall the Software Development Kit (SDK), if it is installed. See page 138.	
5	Ensure that the temp directory has enough space. See page 140.	
6	Check the “Things to remember” section on page 142.	
7	If you are installing across a network, create a virtual CD. See page 155.	
8	Install the Symposium Call Center Server client software. If you are installing from a CD, see page 142. If you are installing across a network, see page 154.	
9	If a Supplementary CD was provided, install PEPs. See page 116.	

Note: If a version other than OC12 of Sybase Open Client is installed on the client PC, you must uninstall it before installing the client software.

Customer-supplied equipment and data checklist

Introduction

Use this checklist to ensure that you have the required equipment and customer-supplied information.

Description	✔

Client PC hardware
Each client PC running the Symposium Call Center Server Client application has the following elements:
■ Intel Pentium 90 MHz (or faster) CPU
■ RAM
  ■ at least 32 Mbytes for Windows 95/98
  ■ at least 64 Mbytes for Windows NT 4.0 Workstation
  ■ at least 64 Mbytes for Windows 2000 Professional
■ at least 1 Gbyte of hard disk space free
■ 1.44 Mbyte floppy drive
■ VGA color monitor
■ keyboard
■ Microsoft-compatible mouse
■ Network interface card (Token Ring or Ethernet)
■ CLAN connection running Microsoft TCP/IP
■ 4-speed or higher CD-ROM drive
■ (optional) parallel printer port
■ (optional) serial port (16550 UART)	

Description	✔
Client PC software PCs up and running with one of the following operating systems installed: ■ Windows 95 with the required Microsoft Service Pack ■ Windows 95 version 4.00.950B or higher (OSR2) ■ Windows 98 ■ Windows NT 4.0 Workstation (Service Pack 5 or greater) ■ Windows 2000 Professional	

Note: This checklist indicates the minimum required hardware for the client. If you are generating large reports on the client PC, a faster processor and increased memory improve performance.

Installation software checklist

Qty	Description	✔
1	Nortel Networks Symposium Call Center Server Release 4.0 Client Application CD	
	Nortel Networks Symposium Call Center Server Supplementary CD (optional). If supplied with this installation, this CD contains product enhancement files.	
1	Documentation CD. This CD contains all Symposium Call Center Server documents in PDF format.	
1	(Optional) Capacity Assessment Tool (CapTool) disks (3). This is the capacity planning software. For installation instructions, refer to the *Planning and Engineering Guide*.	

Limitations

Number of clients

The server keycode determines the number of clients that can simultaneously connect to the server. The number of installed clients can exceed the number of licensed clients, although only the licensed number can connect to the server at any one time.

Coexistence with Meridian Administration Terminal (MAT)

Supported combinations

The Symposium Call Center Server Client application, Release 4.0, can reside on the same PC as MAT 6.53 or MAT 6.6.

If you install the Symposium Call Center Server Client on the same PC as MAT, be sure to install it in a different directory than MAT. For example, if you installed MAT in C:\Nortel, do not install any of the client components in C:\Nortel or any subdirectory of C:\Nortel.

Notes:

- If you have installed the client in the same directory as MAT, you must uninstall the client, reinstall MAT, and install the client in a different directory.
- When you uninstall MAT, the installation program replaces ODBC files with an older version and removes required registry entries. To be able to use the Symposium Call Center Server Client on the PC after uninstalling MAT, you must reinstall the client after uninstalling MAT.

Unsupported combinations

The Symposium Call Center Server Client application cannot reside on the same PC as

- earlier versions of MAT
- earlier versions of the Symposium Call Center Server Client application
- Symposium Express Call Center Server Client application

Note: If you must use the same PC for more than one of these applications, you can use a third-party application to partition the PC hard disk and install multiple copies of Microsoft Windows. Install a separate application on each partition. When you want to use an application, start with the appropriate partition.

Coexistence with Sybase Open Client

The Symposium Call Center Server Client application uses its own version of the Sybase Open Client software (Sybase OC 12). If you install Symposium Call Center Server Client on a PC that has an earlier version of Sybase installed, you are warned that the client software installs a version of Sybase that can conflict with your earlier version and cause other applications to stop. You then have the option to continue and install the client with Sybase or cancel the installation.

Downgrades

A downgrade from Symposium Call Center Server Release 4.0 to an earlier version of Symposium Call Center Server is not supported.

Uninstalling the Software Development Kit

Introduction

Before you install client software, you must ensure that a Software Development Kit (SDK) is not installed on the client PC. SDK and Symposium Call Center Server are not compatible. Use the procedures in this section to check whether SDK is installed, and then to uninstall it if it is present.

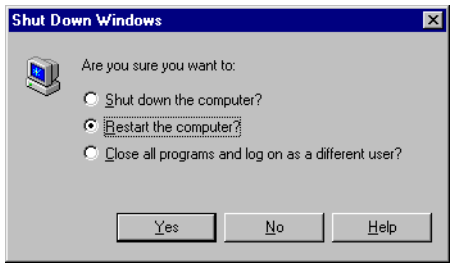
To uninstall SDK

1. Ensure that all applications on the client PC are closed.
2. From the Windows Start menu, choose Settings → Control Panel.
3. Double-click Add/Remove Programs.
4. Scroll through the list, looking for Symposium Call Center Runtime. If this program appears in the list, continue with the following steps to uninstall it.
5. Click Add/Remove.

   Result: A WARNING dialog box appears.
6. Click Yes.

   Result: The system prompts `Uninstall Finished. Please reboot your system.`
7. Click OK.
8. From the Windows Start menu, choose Shut Down.

   Result: The Shut Down Windows dialog box appears.



9. Select Restart the computer?, and then click Yes.

10 The computer restarts.

Checking the temp directory size

Purpose

Use this procedure to ensure that you have at least 100 Mbytes of free space on the hard drive containing your Windows Temp directory. (This directory is usually located on drive C.) The client software requires 100 Mbytes of free space.

If you have insufficient space, you can delete files from your Windows Temp directory.

To check the amount of free space in the temp directory

1. Log on to the client PC.
2. From the Windows Start menu, choose Programs → Command Prompt.
3. Navigate to the path where the temp directory is stored.
4. At the prompt, type **dir**.

   Result: The contents of the current directory appear, along with a summary of free disk space.
5. Check the amount of free disk space that appears on the last line:
   - If the free disk space summary shows more than 50 Mbytes, then you can proceed with installing the client software.
   - If the free disk space summary shows less than 50 Mbytes of free disk space, then remove unnecessary data or programs from the PC until you have at least 50 Mbytes of free disk space.

To delete temporary files

Delete temporary files on a regular basis to avoid potential disk space problems. To delete temporary files, follow these steps.

1. From Windows Explorer, navigate to your system's temporary directory.

   Note: The usual path to this directory is C:\Windows\Temp.

2. Select and then delete all files in the temporary directory.

3. From Windows Explorer, navigate to the Recycle Bin and choose File → Empty Recycle Bin.

Installing the client from the distribution CD

Introduction

Follow the procedure in this section to install the Symposium Call Center Server Client software from the distribution CD. To install from a virtual CD, see “Installing the client over the network” on page 154.

Timing

The procedures in this chapter take approximately one hour to complete.

Before you begin

- This procedure assumes that you are installing a new copy of Symposium Call Center Server Client Release 4.0 from scratch. If you are updating an older version or reinstalling Release 4.0, see “Converting the client from a previous release to Release 4.0” on page 259.
- If the Software Development Kit (SDK) is installed on the client PC, uninstall it following the instructions in “Uninstalling the Software Development Kit” on page 138.
- If a version other than OC12 of Sybase Open Client is installed on the client PC, you must uninstall it before installing the client software.
- Close all applications on the client computer, including pcAnywhere.

Things to remember

Follow the steps in the installation checklist

See “Checklist for installing Symposium Call Center Server client software” on page 132.

Update DLL files

During the installation, you might see dialog boxes that offer to update system DLL files with newer versions. Write down the names of these DLL files. If the files being installed are newer than the existing versions, click Yes. If they are older, click No. Provide the list of replaced DLLs to the system administrator.

Install Acrobat Reader 3.0 with search plug-in

Adobe Acrobat Reader 3.0 or newer must be installed on the client PC to read documentation. STE checks the PC to determine whether Acrobat Reader is installed. If you need Acrobat Reader, you must install it separately.

A copy of Acrobat Reader 3.0 is included in the acrobat folder on the Symposium Call Center Server Documentation CD-ROM. If Acrobat Reader 3.0 or higher is already installed on the client PC, and you already have the search plug-in (Asrch32.api) installed, you do not need to replace it.

Uninstall client software to change the switch type

An installed Symposium Call Center Server client PC can connect to only one type of switch—Meridian 1 or DMS/MSL-100. To change to another switch type, you must completely uninstall the client system software, and then reinstall it with the correct switch type.

To start the client installation

ATTENTION

During the installation, there are points where the setup program performs automatic installation steps between wizard setup dialog boxes. Do not close any windows that appear during these steps. Wait for the next wizard setup dialog box before you use the mouse or keyboard.

If you abort the installation at any time, you must uninstall all of the components before you reinstall.

1 Log on to the client PC.

Note: If the client PC is running Windows NT Workstation or Windows 2000 Professional, log on as Administrator. You must be logged on with local administrative privileges to install, upgrade, or convert Symposium Call Center Server Client software.

2 Exit all applications, including screen savers, and close all windows.

3 Insert the Client installation CD or, if you are installing from a remote CD-ROM, map the client installation CD to a drive letter on the client PC and select Reconnect at Logon.

4 Click Start → Run → Browse, and then select Setup.exe from the root directory on the CD.

ATTENTION

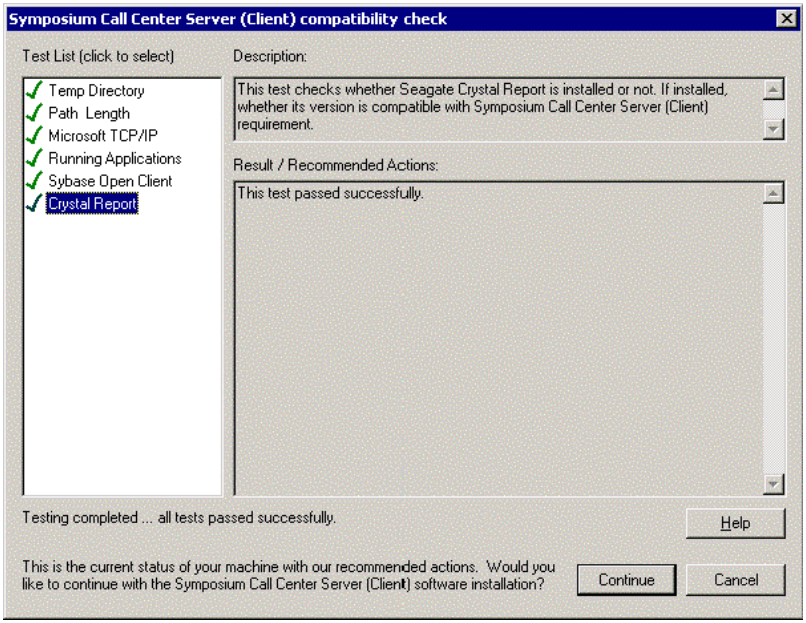
If you encounter the error `Internal Error 2755.1631, E:\Symposium Call Center Server (Client).msi` during this step, you must delete any keys with a null value from the following registry: HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\Session Manager\Environment. When finished, restart the system and begin the installation again.

5 Click OK to run.

Result: The InstallShield Wizard and Windows Installer screens appear. Windows installer checks the system configuration.

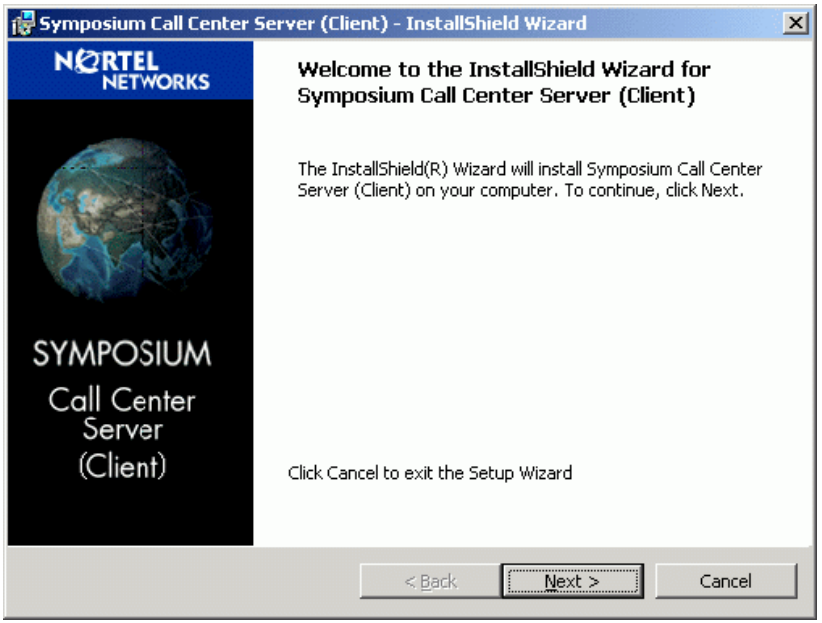
- If the system is configured properly, the Symposium Call Center Server Client Compatibility Check dialog box appears.
- If Windows installer must reconfigure the system, you might be asked to restart the computer. Remove the CD from the CD-ROM drive (if you are installing from a CD), follow the prompt to restart the computer, and begin again at step 1.

Result: The Symposium Call Center Server Client compatibility check dialog box appears, and the program checks the client PC for conflicting software and software version. When the check is complete, the program reports any detected problems. If a problem is detected, refer to the log file in C:\cltprep.log for recommended actions.


Symposium Call Center Server (Client) compatibility check
Test List (click to select)
Temp Directory
Path Length
Microsoft TCP/IP
Running Applications
Sybase Open Client
Crystal Report
Description:
This test checks whether Seagate Crystal Report is installed or not. If installed, whether its version is compatible with Symposium Call Center Server (Client) requirement.
Result / Recommended Actions:
This test passed successfully.
Testing completed ... all tests passed successfully.
Help
This is the current status of your machine with our recommended actions. Would you like to continue with the Symposium Call Center Server (Client) software installation?
Continue
Cancel

6 If all tests pass successfully, click Continue.

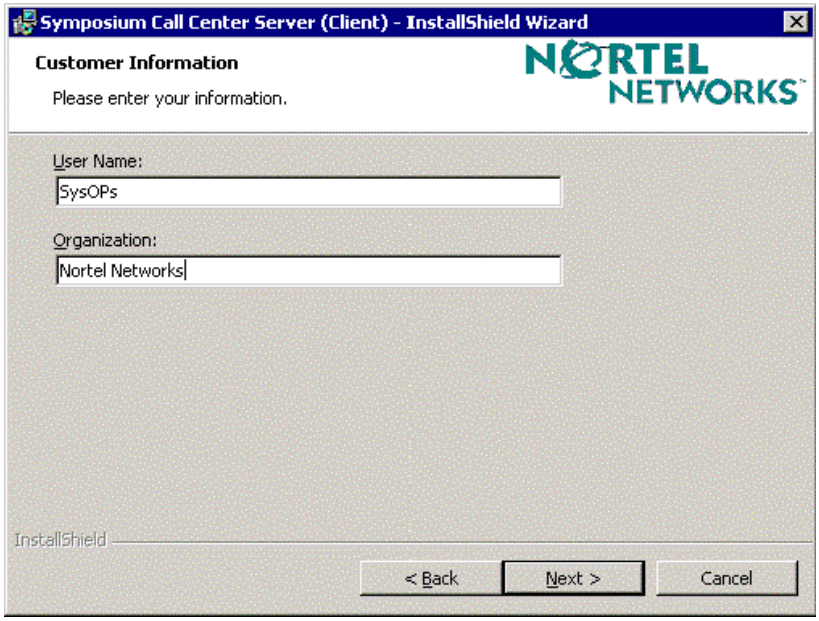
Result: The Symposium Call Center Server (Client) InstallShield Wizard window appears with a welcome message.


Symposium Call Center Server (Client) - InstallShield Wizard
NORTEL NETWORKS
SYMPOSIUM
Call Center Server (Client)
Welcome to the InstallShield Wizard for Symposium Call Center Server (Client)
The InstallShield(R) Wizard will install Symposium Call Center Server (Client) on your computer. To continue, click Next.
Click Cancel to exit the Setup Wizard
< Back
Next >
Cancel

Tip: The InstallShield window may appear with an installation error message. For example, if you are using Windows 95 and do not have DCOM95 installed, you must install it before proceeding. In this case, the Install DCOM95 now button appears. Click the button or run the executable copy of DCOM95.exe located on the root directory of the CD. Restart the system and run Setup again to continue the Symposium Call Center Server Client installation.

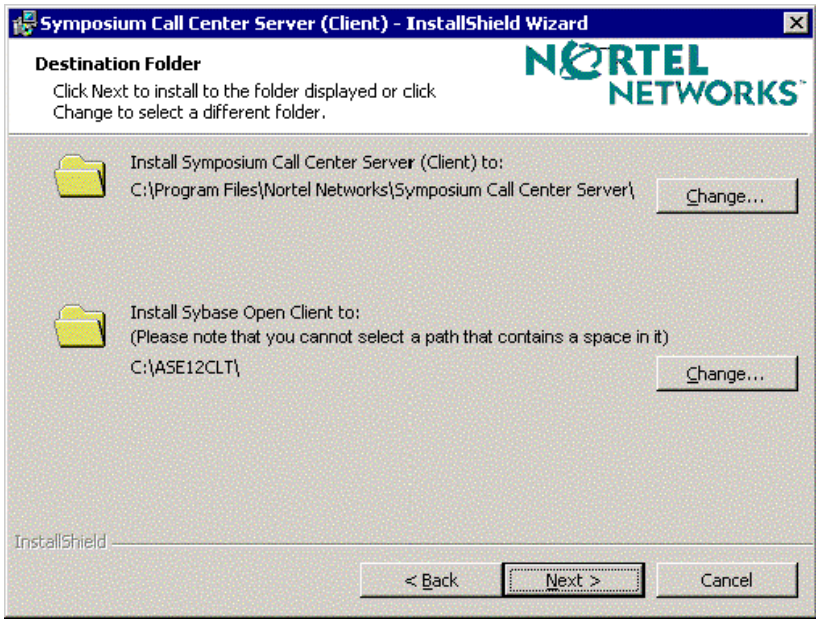
7 Click Next.

Result: The Customer Information dialog box appears.



8 Type or confirm the User Name and the Organization, and then click Next.

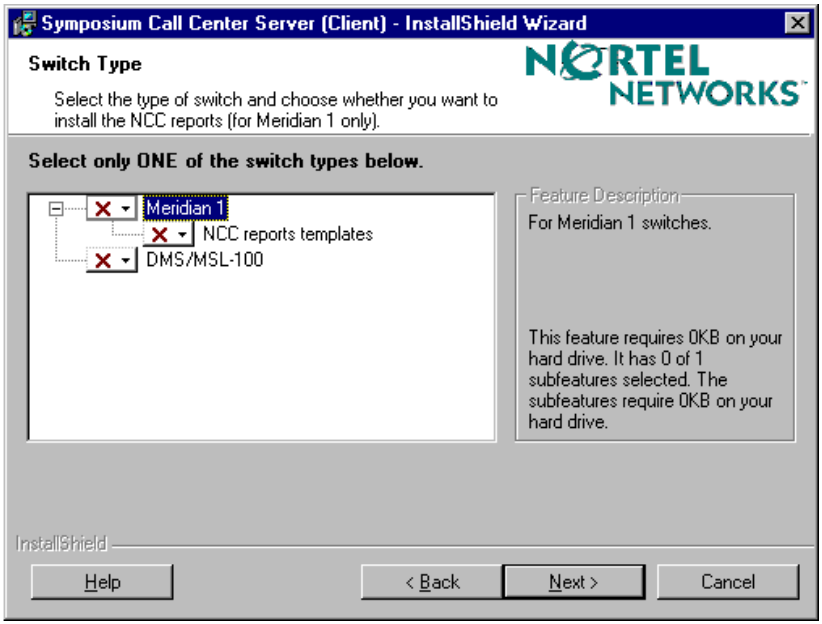
Result: The Destination Folder dialog box appears.


Symposium Call Center Server (Client) - InstallShield Wizard
Destination Folder
Click Next to install to the folder displayed or click Change to select a different folder.
NORTEL NETWORKS
Install Symposium Call Center Server (Client) to:
C:\Program Files\Nortel Networks\Symposium Call Center Server\
Change...
Install Sybase Open Client to:
(Please note that you cannot select a path that contains a space in it)
C:\ASE12CLT\
Change...
InstallShield
< Back
Next >
Cancel

9 If you do not want to install the Symposium Call Center Server Client or the Sybase Open Client in their default paths, click the related Change button and select the new path. (The default path for the client software is not the same as in previous versions.)

10 Click Next.

Result: The Switch Type dialog box appears.


Symposium Call Center Server (Client) - InstallShield Wizard
Switch Type
Select the type of switch and choose whether you want to install the NCC reports (for Meridian 1 only).
NORTEL NETWORKS
Select only ONE of the switch types below.
Meridian 1
NCC reports templates
DMS/MSL-100
Feature Description
For Meridian 1 switches.
This feature requires 0KB on your hard drive. It has 0 of 1 subfeatures selected. The subfeatures require 0KB on your hard drive.
InstallShield
Help
< Back
Next >
Cancel

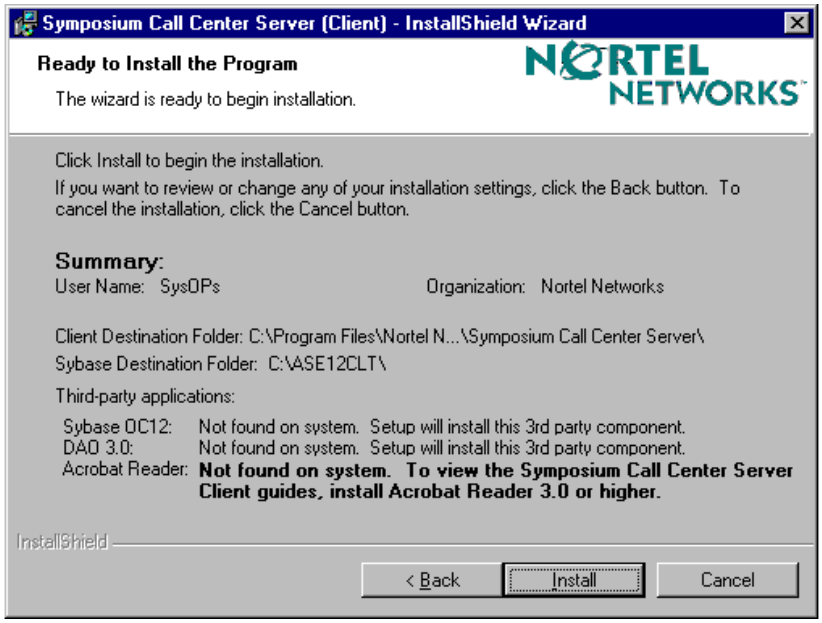
11 Click the down arrow beside the type of switch that you are connecting your client to (either Meridian 1 or DMS/MSL-100), and then choose Install this feature now. If you choose Meridian 1, and if network skill-based routing is enabled, you can click the down arrow beside NCC reports templates and choose Install this feature now to select NCC reports.

Note: If you choose not to install NCC reports at this time, you can install NCC reports later as described in “Reinstalling NCC reports” on page 248.

If you select both Meridian 1 and DMS/MSL-100, an error message informs you that only one switch type is allowed.

12 Click Next.

Result: The Verification dialog box appears.


Symposium Call Center Server (Client) - InstallShield Wizard
Ready to Install the Program
The wizard is ready to begin installation.
NORTEL NETWORKS
Click Install to begin the installation.
If you want to review or change any of your installation settings, click the Back button. To cancel the installation, click the Cancel button.
Summary:
User Name: SysOPs
Organization: Nortel Networks
Client Destination Folder: C:\Program Files\Nortel N...\Symposium Call Center Server\
Sybase Destination Folder: C:\ASE12CLT\
Third-party applications:
Sybase OC12: Not found on system. Setup will install this 3rd party component.
DAO 3.0: Not found on system. Setup will install this 3rd party component.
Acrobat Reader: Not found on system. To view the Symposium Call Center Server Client guides, install Acrobat Reader 3.0 or higher.
InstallShield
< Back
Install
Cancel

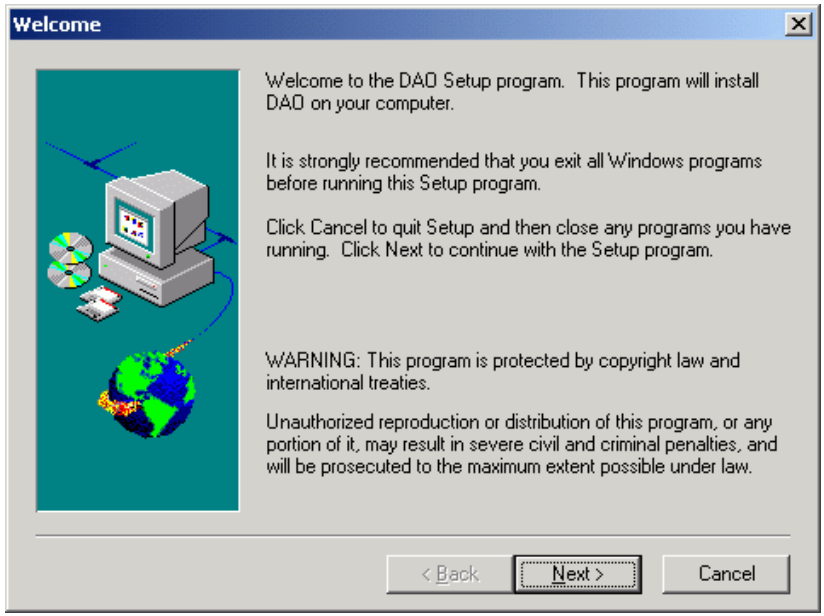
13 Verify that all of the options showing in the Verification dialog box are correct. If any errors appear, click Back, make the necessary corrections, and then click Next.

14 Click Install.

Result:

- If you are using Windows 2000 Professional, the Data Access Objects (DAO) setup Welcome window appears. Proceed with the DAO setup in this step.
- If you are not using Windows 2000 Professional, the InstallShield wizard installs the client software. See the result after step 16.

The DAO setup Welcome window appears for Windows 2000 only.

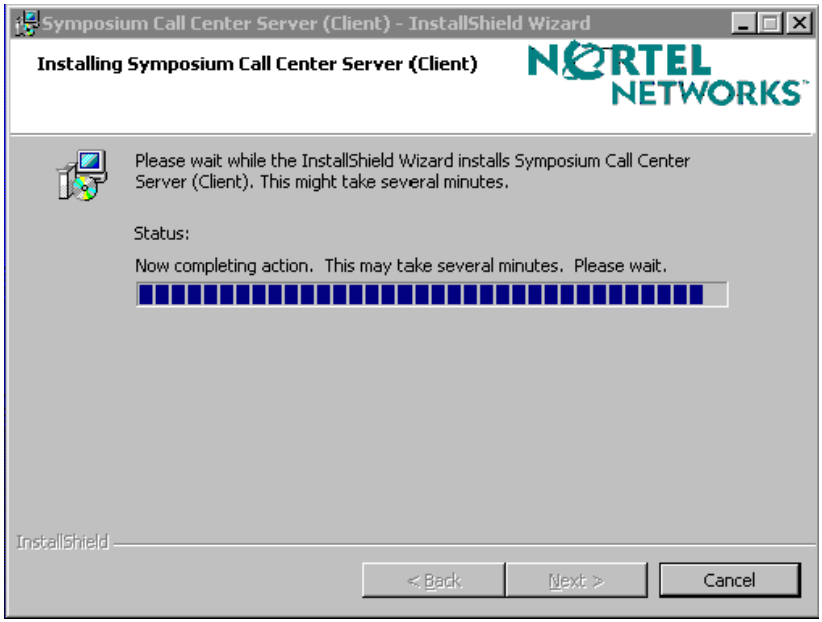

Welcome
Welcome to the DAO Setup program. This program will install DAO on your computer.
It is strongly recommended that you exit all Windows programs before running this Setup program.
Click Cancel to quit Setup and then close any programs you have running. Click Next to continue with the Setup program.
WARNING: This program is protected by copyright law and international treaties.
Unauthorized reproduction or distribution of this program, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under law.
< Back
Next >
Cancel

15 Click Next to install DAO.

Result: A dialog box appears asking you to finish the installation of DAO.

16 Click OK.

Result: The Installing Symposium Call Center Server (Client) window appears. The system installs Symposium Call Center Server Client software.

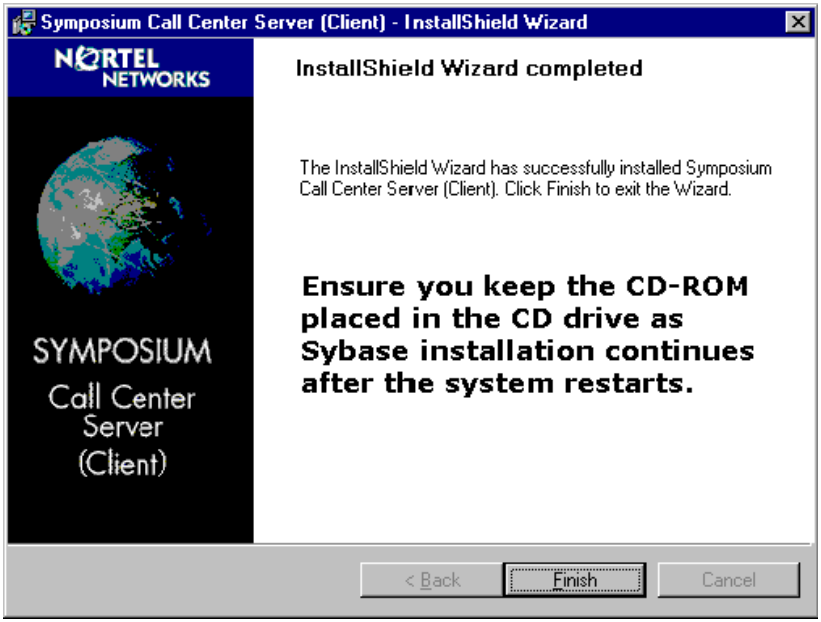

Symposium Call Center Server (Client) - InstallShield Wizard
Installing Symposium Call Center Server (Client)
NORTEL NETWORKS
Please wait while the InstallShield Wizard installs Symposium Call Center Server (Client). This might take several minutes.
Status:
Now completing action. This may take several minutes. Please wait.
InstallShield
< Back
Next >
Cancel

Note: The installation might take several minutes.

Result: When this section is complete, a dialog box appears asking if you want to read the readme file.

17 Choose whether you want to read the readme file. If you click Yes, then click File → Exit when you are finished.

When the client installation is complete, the InstallShield Wizard completed message appears.


Symposium Call Center Server (Client) - InstallShield Wizard
NORTEL NETWORKS
SYMPOSIUM
Call Center Server (Client)
InstallShield Wizard completed
The InstallShield Wizard has successfully installed Symposium Call Center Server (Client). Click Finish to exit the Wizard.
Ensure you keep the CD-ROM placed in the CD drive as Sybase installation continues after the system restarts.
< Back
Finish
Cancel

18 Click Finish.

Result: The program prompts you to restart.

19 Keep the CD in the CD-ROM drive and click Yes to restart the computer.

Note: Be sure to keep the CD-ROM in the CD-ROM drive so that Sybase can continue its installation after the system restarts.

Result: The computer restarts. The system configures and populates the Symposium Call Center Server Client database.

Note: If you are using Windows 2000 Professional, once the installation is complete, add any user accounts wanting to use the client software so that the user has Power User security access.

What's next?

If you did not receive a Supplementary CD, then continue with "Adding an SMI system" on page 159. If you received a Supplementary CD, then install the PEP as described in "Overview" on page 116.

Installing the client over the network

Introduction

If you are installing client software on several clients, it might be easier to create a virtual CD on one source PC to host the installation. You can then map a network drive for the source PC to allow each user to run the installation program from the mapped drive.

ATTENTION

To avoid installation errors caused by excessive network loading, do not perform the network installation during peak network traffic hours.

Virtual CD

A virtual CD is a complete copy of the Symposium Call Center Server Client installation CD that resides on a shared directory on the network. This CD functions in the same way as a real CD inserted into the CD drive on a client PC. It allows you to install other client PCs without a physical CD. The virtual CD is useful if you are installing in networked sites (Meridian 1 only).

Requirements

You must meet the following requirements for this type of installation:

- The source PC has
  - Pentium 90 CPU or higher
  - a minimum of 32 Mbytes of RAM
  - a minimum of 250 Mbytes of continuous space available on its hard drive
  - Windows NT 4.0 and the latest service pack
  - a working network connection
  - file-sharing capabilities under Microsoft Network

  The source PC must be dedicated to this activity (not used for other tasks during the network installation).

- The customer LAN (CLAN) connecting the source and client PCs must be running Microsoft Network.
- The CLAN must be stable, with moderate traffic volume during the network installation process.

Before you begin

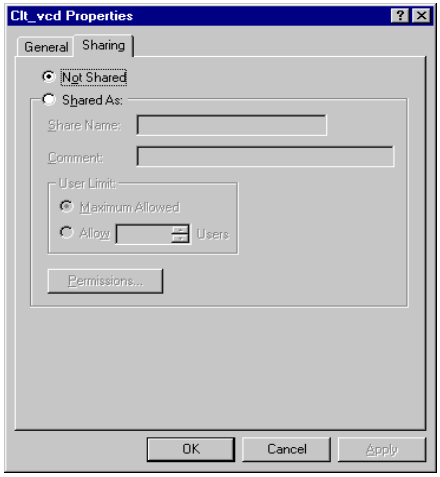
- If the Software Development Kit (SDK) is installed on the client PC, uninstall it following the instructions in "Uninstalling the Software Development Kit" on page 138.
- If a version other than OC12 of Sybase Open Client is installed on the client PC, you must uninstall it before installing the client software.

To create a virtual CD

1. In Windows Explorer, select the drive on which you want to create the virtual CD (in this example, K).
2. Choose File → New → Folder, and create a new folder called CLT_VCD.
3. Insert the Nortel Networks Symposium Call Center Server Client Application CD in the CD-ROM drive (in this example, drive E).
4. Select the root directory of the CD, and then select all of the files in the CD.
5. Choose File → Copy, and copy the entire CD to the new folder (in this example, K:\CLT_VCD).
6. When the copy is complete, select the directory K:\CLT_VCD.

7 Choose File → Sharing.

Result: The Clt_vcd (Client Virtual CD) Properties property sheet appears.



8 Click Shared As.

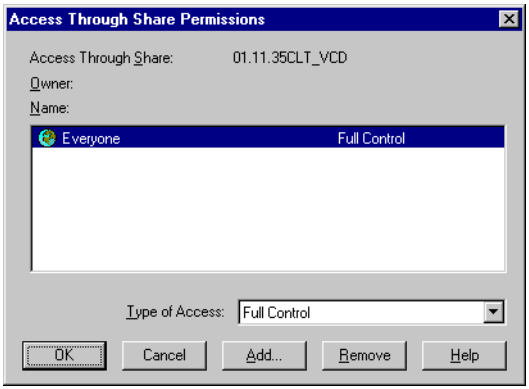
9 The Share Name and User Limit dialog boxes become active.

10 Change the Share Name from CLT_VCD to the version number of the software (for example, 04.01.01CLTR).

11 For user limits, click Allow and allow no more than three users to connect at a time. You must limit the number of concurrent installation copies to ensure reasonable performance over the network.

12 To grant other users access to this directory, click Permissions.

Result: The Access Through Share Permissions dialog box appears.



13 Click Remove to remove the Everyone group.

14 To add names to the list, click Add and select the groups or individual users to whom you want to grant access to the virtual CD.

15 To remove names from the list, click Remove.

16 From the Type of Access list, select Read.

CAUTION

Risk of data loss

If you share with Read/Write access, other users can delete or corrupt the virtual CD.

17 Click OK.

18 Click Yes in the Windows NT message dialog box, indicating that the share name is not accessible from some MS-DOS workstations.

19 Click OK.

To start installation from a virtual CD

ATTENTION

The network installation uses the same recovery process as a regular installation from a physical CD. If you see an error message, click Resume to continue the installation, or click Abort and reinstall the client application.

You must map a network drive to the server and virtual CD directory, as shown in the following procedure.

1. Log on to the client PC.

   Note: If the client PC is running Windows NT Workstation, log on as Administrator. You must be logged on with administrative privileges to install, upgrade, or convert Symposium Call Center Server software.

2. In Windows Explorer, choose Tools → Map Network Drive.

3. For Path, type \\<source PC computer name>\<Share Name of the virtual CD directory>.

   Example: \\TOR658\04.01.01CLTR

4. Check Reconnect at Logon, then click OK.

   Result: The virtual CD directory is mapped as a network drive in the Windows Explorer.

5. Navigate to the virtual CD directory (in this example, \01.11.33CLTR), and double-click Setup.exe.

   Result: The installation begins.

6. Go to “Installing the client from the distribution CD” on page 142, and follow the steps for a regular client installation.

7. When you finish the client installation, choose Tools → Disconnect Network Drive to disconnect the virtual CD drive.

   Result: This step allows another client PC to connect for a network installation.

Adding an SMI system

Introduction

Use the SMI Workbench to add an SMI system for each server to which you want to connect from the client PC. When you double-click that system, the SMI Workbench initiates a connection to the server. When the connection is established, the SMI window opens. The SMI window contains programs for administering and monitoring the Symposium Call Center Server.

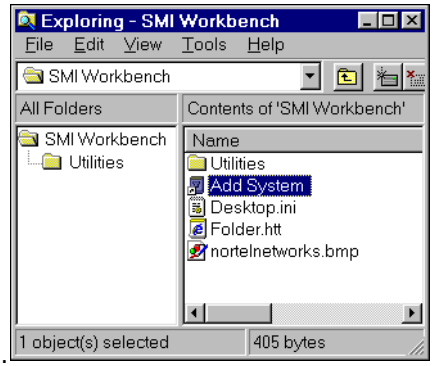
Using a dial-up connection to the server

Client PCs that are not on the same LAN as the server must use Dial-Up Networking to establish a network connection. For information about using a dial-up connection, refer to the *Administrator's Guide*.

Note: You cannot generate reports across a dial-up (PPP) connection.

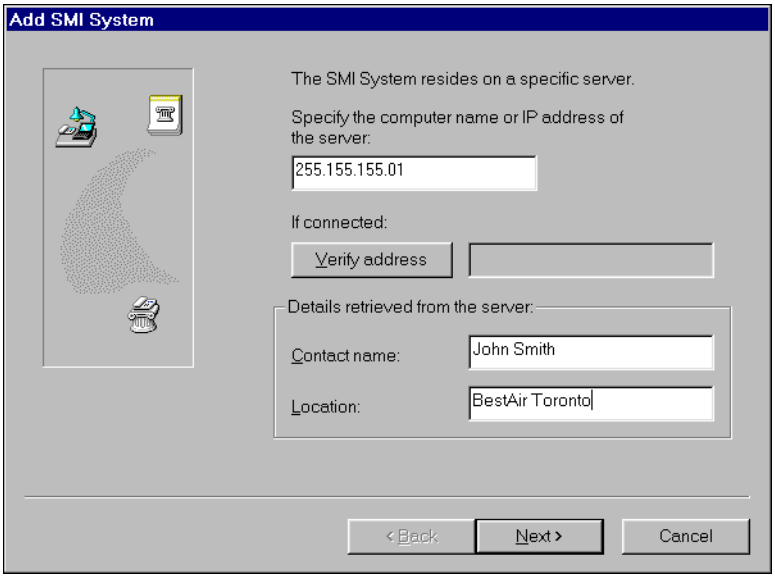
To add an SMI system

1 From the Windows Start menu, choose Programs → SMI Workbench.



2 Double-click Add System.

Result: The Add SMI System dialog box appears.



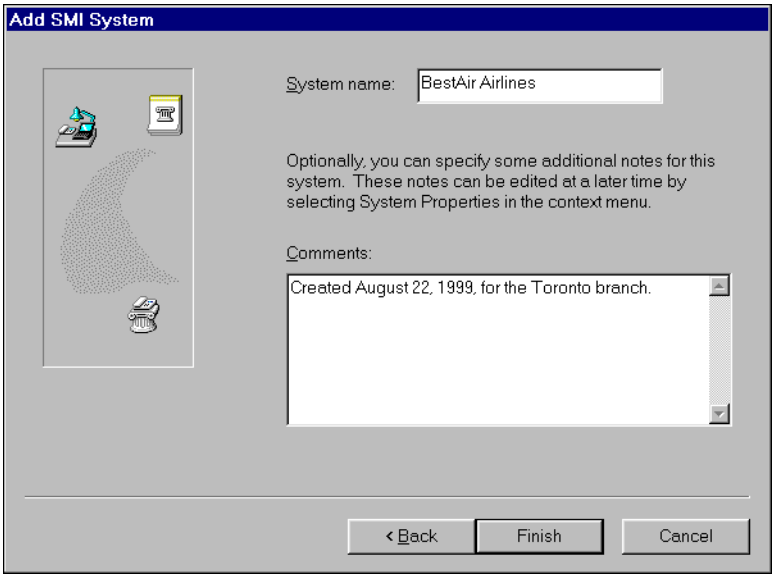
3 Enter the computer name or CLAN IP address of the server you want to access.

Note: If you are using a dial-up connection to the server, then enter the CLAN IP address and not the computer name.

4 If the client PC has a network connection established with the server, then click Verify Address to verify that the computer name or IP address is correct.

5 Click Next.

Result: The Add SMI System window appears.


Add SMI System
System name:
BestAir Airlines
Optionally, you can specify some additional notes for this system. These notes can be edited at a later time by selecting System Properties in the context menu.
Comments:
Created August 22, 1999, for the Toronto branch.
< Back
Finish
Cancel

6 Optionally, enter notes or comments that describe this SMI system.

7 Click Finish.

Result: An SMI system is added to the SMI Workbench folder.

To group SMI systems by site (Meridian 1 only)

If the client PC is administering servers that are located in different locations, group SMI systems by site.

1 To group SMI systems, create subfolders in the SMI Workbench folder.

2 Name the subfolders by the site names.

3 Click and drag the SMI systems into the appropriate folders.

What's next?

Continue with "Testing the client-server connection" on page 162.

Testing the client-server connection

Introduction

If you can log on to the server, then the connection between the server and client is configured correctly.

To log on to the server for the first time

1. Log on to the client PC.

   Note: If the client PC is running Windows NT Workstation or Windows 2000 Professional, log on as Administrator. Only the Administrator can accept the End-User License Agreement that appears when you connect to the server for the first time.

2. Double-click the icon for the Symposium Call Center Server to which you want to connect.

   Result: The Symposium Login dialog box appears.

3. In the User ID box, type **sysadmin**. Use only lowercase letters.

4. In the Password box, type **nortel**. Use only lowercase letters.

   Result: The End User Licence Agreement screen appears.

5. Click Accept.

   Result: The system prompts you to change the password.

6. Follow the instructions to change the sysadmin password.

   Result: The SMI window appears. If this window does not appear, see Chapter 15, “Troubleshooting.”

7. If you plan to configure the server at this time, then do this now using the programs in the SMI window. Refer to the *Administrator’s Guide*.

Installing the Software Development Kit

Restrictions

The Software Development Kit (SDK) is not compatible with the Symposium Call Center Server Client software. Do not install the SDK on a PC that has the client software installed.

To install the SDK

1. Log on to the PC.

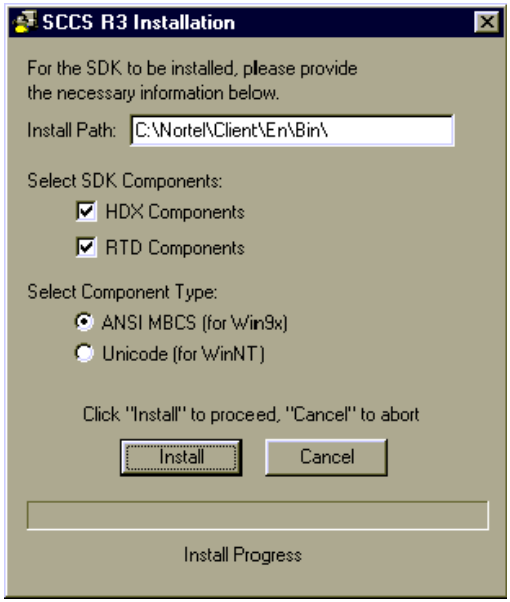
   Note: If the PC is running Windows NT Workstation or Windows 2000 Professional, log on as Administrator. You must be logged on with administrative privileges to install software.

2. Exit all applications, including screen savers, and close all windows.

3. Insert the Symposium Call Center Server Release 4.0 Client Application CD or, if you are installing from a remote CD-ROM, map the CD to a drive letter on the client PC.

4 Click Start → Run → Browse, and then select setup.exe from the iccmsdk folder on the CD. Click OK.

Result: The Installation dialog box opens.

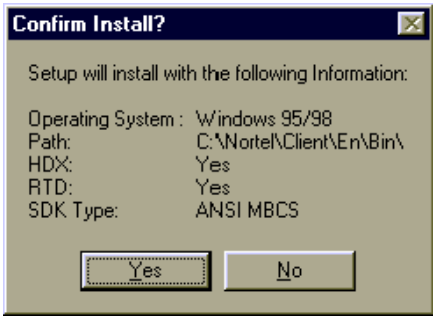


5 In the Install Path box, type the full path to the location where you want to install the SDK or use the default path.

6 Select the components you want to install, and choose ANSI if you are using Windows 9x or Unicode if you are using Windows NT or Windows 2000.

7 Click Install.

Result: A confirmation dialog box appears.



8 Verify that all of the options showing in the Verification dialog box are correct. If any errors appear, click No, make the necessary corrections, and then click Install.

9 Click Yes.

Note: If the path you selected does not exist, you are prompted to create it. Click Yes.

Result: The following mesage appears: `SDK Setup Complete. Please exit all applications and reboot your computer now.`

10 Click OK.

11 Restart the PC.

Chapter 6

Converting, upgrading, reinstalling, and uninstalling server software

In this chapter

Converting from Release 1.5 to Release 4.0 168

Performing server software conversions from Release 3.0 to Release 4.0 211

Reinstalling server software 231

Uninstalling server software 242

Converting from Release 1.5 to Release 4.0

Introduction

This section describes the process for a Symposium Call Center Server software Release 1.5 to Release 4.0 conversion. Conversion from Release 1.0 and 1.1 to Release 4.0 is possible only after you first upgrade to Release 1.5. For more information, refer to *Symposium Call Center Server Upgrade Instructions from Release 1.0 to Release 1.5*.

Notes:

- In Release 4.0, a number of standard reports no longer exist. User-defined reports based on these reports are not available after the conversion. You must create new user-defined reports based on the new templates. To find out which new template contains the information you need, refer to the *Historical Reporting and Data Dictionary.*
- In Release 4.0, the database structure has changed. User-created reports that include fields that have been deleted from the database must be updated. For instructions, refer to the *Historical Reporting and Data Dictionary.*

CAUTION

Risk of data loss

Make sure you complete all steps in the checklists in sections “Before you begin” and “Conversion checklist”, and in the specified order.

Effect of conversion on agent filtering

The format of the agent name has changed in the Release 4.0 database to allow sorting on agent last name. As a result of this change, any agent filtering set up for user-defined reports is lost during the conversion. To make it easier to restore filtering after the conversion, print all user-defined reports containing agents prior to conversion (see the “Before you begin” checklist).

Default access classes

Symposium Call Center Server requires that the three default access classes (adminGroup, Call Center Admin, and Supervisor) be defined. Before beginning the conversion, you must apply PEPs on the client and server to

- prevent these classes from being deleted
- re-add them if they have been deleted
- restore their names, if they have been renamed

If any of these access classes do not exist or if they have different names, the conversion fails.

Script syntax changes

Script syntax rules have changed in Release 4.0. You must ensure that you update the scripts before you convert to Release 4.0. The following script commands have changed in Release 4.0:

- In Release 1.5, it was not necessary to close comments, but in Release 4.0, all comments must be closed.
- Release 4.0 does not support the use of the Assigned/Assigned To commands with a call variable of type Set.
- The With Treatment option is no longer available with the Give Controlled Broadcast and Open Voice Session commands. You must ensure that the Symposium Call Center Server Global Settings is configured with the Access DN set as the default Treatment DN, and the default IVR DN is the Access DN.

Notes:

For more information about syntax rules, refer to the *Scripting Guide*.

If you are converting from Symposium Call Center Server Release 1.5 to 4.0 or from 3.0 to 4.0, use the TFE Syntax Checker Utility to check your scripts. The utility determines whether your scripts adhere to the syntax rules used in Release 4.0. To ensure the utility's functionality, make sure you install Release 1.5 PEP NI015003P083S.

If you are converting from Release 1.1, make sure you install PEP SU12S and all up to PEP 154S.

ATTENTION

If you do not check your script syntax before converting your system, and if the syntax of one or more of your scripts does not adhere to the new rules, the TFE service will not come up after conversion. If this happens, you must view the scripts, find the syntax errors, correct them, and validate and activate the scripts. The TFE only comes up when all scripts comply with the new rules.

Requirements

Requirements	✔
The Nortel Networks Symposium Call Center Server Release 4.0 Operating System CD, three Windows NT 4.0 Setup Boot disks, and the Certificate of Authenticity containing the Product ID	
Nortel Networks Symposium Call Center Server Release 4.0 Platform Support CD Version 1.0 **Note:** If you are using a different version of the CD, refer to your *Distributor Technical Reference* or *Documentation Addendum*.	
Nortel Networks Symposium Call Center Server Release 4.0 Application CD	
If you are using the 1003t platform, you need the HP NetServer Navigator CD that accompanied the server.	
All server driver disks for Windows NT 3.51 and Windows NT 4.0, as described in the maintenance guide for your hardware platform **Note:** If you are using the 1003t platform, you must generate the driver disks. These disks are used during the upgrade of Windows NT. For detailed instructions, refer to your regional Symposium Call Center Server technical web site.	

Requirements	✔
Three blank disks—one for a Release 1.5 Platform Recovery disk, one for an emergency repair disk, and one for a Release 4.0 Platform Recovery disk	
Make sure that you have the following documents available: ■ Installation Addendums and Readme files from your regional Symposium Call Center Server technical web site. North American customers refer to the web site at www.nortel-sccs.com. European customers refer to the Symposium Call Center Server area on the web site at www.nortelnetworks.com/nic. ■ maintenance guide for your hardware platform ■ Release 1.5 *Backup and Restore Instructions* ■ *Distributor Technical Reference* or *Documentation Addendum* ■ Chapter 3, “Installing and configuring pcAnywhere”	
Keycode and serial number from Release 1.5 software	
Keycode and serial number from the Release 4.0 software	
At least 256 Mbytes of free disk space on drive D of the server PC	

Before you begin

To make sure that the server is set up and ready for the conversion, perform these steps at least three days before beginning the conversion.

Notes:

- Some of these steps are required as a result of changes to hardware requirements in Release 4.0.
- If you want to perform a server conversion from Release 1.5 to Release 4.0 and perform a platform migration, you must perform the conversion and migration separately.

- If you want to migrate from, for example, a 2 Gbyte first physical drive server to a 4 Gbyte first drive server, perform the conversion on the original server first, and then migrate to the new server. This ensures that there is more free disk space on the new server. In this case, the swap file on the new server remains on drive D.
- If you want to migrate from, for example, a 4 Gbyte first physical drive server to another 4 Gbyte first drive server, perform the platform migration to the new server first, and then perform the conversion. (Since the new server is usually faster, the conversion process finishes sooner on the new server.) This is a key consideration, since there is usually a limited amount of downtime available to complete this task.

Step		✔
1	If you are using the Standard version of the 701t or 702t platform, install the Upgrade Hardware Kit prior to upgrade. **Note:** Symposium Call Center Server Release 4.0 does not support the Standard version.	
2	Make sure that your server is equipped with at least 256 Mbytes of memory (see page 180). For more information on memory requirements, refer to *Symposium Call Center Server Planning and Engineering Guide*. For installation instructions, refer to the maintenance guide for your hardware platform.	
3	Make sure you have a current database (or optionally, full) backup of the server (see page 312). **Time to complete:** approximately 30–90 minutes (depending on the size of your database) **Note:** Before proceding with any backup or restore operation, refer to Chapter 11, “Backing up data,” Chapter 12, “Restoring data,” or required third-party documentation.	

Step		✔
4	If you have a RAID system, Nortel Networks recommends you perform a consistency check of your RAID drives (see Chapter 11, “Backing up data”). (Optional) On a RAID system, if extra RAID drives are available, you might want to create a RAID backup. This can take several hours to complete. For more information, see Chapter 11, “Backing up data.” **Note:** You can perform the consistency check during the conversion when you split the RAID drives, but the check is time-consuming. To save time during the conversion, perform the consistency check in advance.	
5	Obtain the latest Installation Addendums from your regional Symposium Call Center Server technical web site. North American customers refer to the web site at www.nortel-sccs.com. European customers refer to the Symposium Call Center Server area on the web site at www.nortelnetworks.com/nic.	
6	If you are using the 1003t platform, create a driver disk. For more information, see your regional Symposium Call Center Server technical web site. **Note:** Drivers for the 1003t platform are distributed on the HP NetServer Navigator CD-ROM.	
7	Create a Platform Recovery disk on your Release 1.5 server (see page 181). **Note:** This procedure requires that the appropriate PEPs be installed on the Release 1.5 server. To determine which PEPs you require, refer to your regional Symposium Call Center Server technical web site. **Time to complete:** approximately 3 minutes	
8	At each client PC, delete selection criteria from all user-defined reports containing agents (see page 177). **Note:** After the conversion is complete, follow the procedure in “To restore report selection criteria” on page 270.	
9	Apply the following PEPs on the server (for detailed instructions, see “Overview” on page 116): ■ Server PEP NI015003P068S ■ Server PEP NI015003P083S	

Step	✔
10 Check your script syntax to make sure it adheres to new syntax rules. Use the TFE Script Checker utility (see page 177).	

Conversion checklist

The following table summarizes all steps involved in converting from Symposium Call Center Server Release 1.5 to Release 4.0. This process takes from 4 to 6 hours to complete, depending on the size of your system. You must complete all of the following steps.

Step	✔
1 Record your administrator logon password. **Note:** During the upgrade of Windows NT, all user profiles are removed. You must log on to the system as “Administrator” during the Windows NT upgrade process.	
2 Make sure that the folder D:\Temp exists. If it does not exist, create it using the Windows NT Explorer.	
3 Split the RAID drives (see page 217). **Time to complete:** approximately 20 minutes	
4 Move the swap file (if it is on drive D) (see page 182). **Note:** Do not restart the server PC. **Time to complete:** approximately 20 minutes	
5 Uninstall pcAnywhere. The Windows NT upgrade causes a “`missing DISPLAY_DRIVER.dll`” problem with pcAnywhere. To avoid this problem, you must uninstall pcAnywhere (see page 185). **Time to complete:** approximately 15 minutes	

Step		✔
6	Make sure that the video adapter installed on the server PC is a VGA-compatible Display Adapter (see page 186). **CAUTION** **Risk of system failure** Before you proceed with the OS upgrade, make sure that the video adapter used by your system is a VGA-compatible Display Adapter. Failure to do so can result in the appearance of a blue screen, with the message The `required system file display_driver.dll is bad or missing` to appear during OS upgrade.	
7	Delete unnecessary files (such as trace and log files) from the C and D drives. Make sure at least 256 Mbytes are available on drive D (see page 187).	
8	Perform the preconversion (see page 188). **Time to complete:** approximately 60 minutes	
9	Upgrade the Windows NT operating system (see page 189). **Time to complete:** approximately 60 minutes	
10	Apply Windows NT Service Pack 6A unless already installed (see page 193). **Time to complete:** approximately 10 minutes	
11	Remove Microsoft Internet Information Server (see page 194). **Time to complete:** approximately 2 minutes	
12	Install the DMI (see page 194). **Time to complete:** approximately 20 minutes	
13	Run the Symposium Call Center Server software conversion (see page 196). **Time to complete:** approximately 90 minutes	

Step	✔
14 Change the video driver (see page 206). **Time to complete:** approximately 4 minutes **CAUTION** **Risk of system failure** Before you install pcAnywhere version 9.2, make sure that the proper video driver for your platform is installed. Failure to do so can result in the appearance of a blue screen after pcAnywhere installation or after use of pcAnywhere for operations such as file transfer.	
15 Install and configure pcAnywhere version 9.2 on the server (see Chapter 3, “Installing and configuring pcAnywhere”). **Time to complete:** approximately 15 minutes	
16 Create an emergency repair disk (see page 208). **Time to complete:** approximately 3 minutes	
17 (Optional) Configure RSM (see page 208).	
18 (Optional) Configure SNMP (see “Configuring SNMP on the server” on page 303).	
19 Create a database backup (see Chapter 11, “Backing up data”).	
20 Ensure that all Symposium Call Center Server services are started. See page 209.	
21 Continue with the client conversion if required. See “Converting the client from a previous release to Release 4.0” on page 259.	
22 Rebuild the RAID drives when you are confident of system operation (see Chapter 12, “Restoring data”).	

To delete selection criteria from reports

To avoid problems resulting from the database changes, follow these steps at each PC for each user-defined report containing agents:

1. Select the report, choose File → Run Now, and print the report. (For detailed instructions, see the *Supervisor's Guide*.) This step provides you with a hard-copy record of the filtering setup for the report.
2. On the Reports window, select the report and choose File → Properties.
3. Click the Selection Criteria tab.
4. Select each agent in the Selected box, and click the right arrow to remove the agent from the box. Repeat this step until all agents have been removed from the box.
5. Click Save.

To use the TFE Script Checker utility

Use the following utility to check your scripts for compliance with new syntax rules prior to converting the system.

Note: The path to the utility depends on the type of conversion you are doing.

1. Make sure that the TFE Syntax Checker Utility has been properly installed by following these steps:

   For a Release 1.5 Symposium Call Center Server running Windows NT 3.51

   a. Double-click Program Manager.

   b. Double-click Main.

   c. Double-click Command Prompt.

   d. Go to step 2.

   For a Release 3.0 Symposium Call Center Server running Windows NT 4.0

   a. From the Start menu, choose Programs → Command Prompt.

   b. Go to step 2.

2. Type **cd ..** and press Enter until you are in the D:\> directory.
3. Type **cd Nortel\iccm\bin** and press Enter.

4 Type **dir SyntaxChecker.exe** and press Enter.

Result: The SyntaxChecker.exe file is listed.

5 If you do not know the ELAN IP address of the server PC, type **ipconfig** and press Enter.

Result: The program displays the ELAN IP address.

6 Type the following command and press Enter:

SyntaxChecker -h *nn.nn.nn.nn* -p

where *nn.nn.nn.nn* is the ELAN IP Address of the server.

Note: This command compiles all validated and active scripts in the system, and outputs the results to a log file. To also compile edited scripts, use the -e parameter (for example, **SyntaxChecker -h *nn.nn.nn.nn* -p -e**).

Result: The utility compiles each script, and indicates whether it compiled successfully (OK) or whether it contained one or more errors.

7 Use a text editor, such as Notepad, to view the results in the log file, systax.log.

8 Log on to a client PC, and edit any scripts containing errors. If the error is:

- the use of the WITH TREATMENT option in the GIVE CONTROLLED BROADCAST or OPEN VOICE SESSION commands, remove the WITH TREATMENT option from the script.
- an incomplete comment, close the comment by inserting */ at the end.
- a call variable of type Set that is assigned a value with either the Assigned or Assigned To commands, use the procedure “To correct call variables of type Set.”

9 When you are finished revising the scripts, validate and activate them.

10 Repeat steps 6 to 9 until no more errors are detected.

To correct call variables of type Set

1 Choose Call Flow Administration → Script Variables.

Result: The list of variables appears.

2 Click Groups.

Result: The call variables appear at the beginning of the list.

3 Double-click the call variable reported by the TFE Syntax Checker utility to view its properties. The General property page shows you the active scripts that reference this variable. Click the Attributes tab to see the call variable type.

4 For each call variable of type Set used in an Assigned or Assigned To command, you can choose one of the following options:

- Create a new call variable of type Item, and replace the Set variable with your new variable in the scripts.

  Example: You have one of the following entries in your script:

  - `ASSIGN Sales_sk TO My_Skillsets`
    `QUEUE TO SKILLSET My_Skillsets`
  - `My_Skillsets ASSIGNED Sales_sk`
    `QUEUE TO SKILLSET My_Skillsets`

  (where My_Skillsets is a call variable of type Set and initialized to Help_sk, Services_sk, and so on). You can replace them with

  ```
  ASSIGN Sales_sk TO My_Skillset
  QUEUE TO SKILLSET My_Skillset
  ```

  (where My_Skillset is a call variable of type Item and initialized to Help_sk).

  Note: This change causes calls to be queued to only one skillset, Sales_sk. Since a system has a limit of 20 call variables, you might need to delete some variables before creating new variables.

  To use this method, follow these steps:

  a. Comment out the line with the Set call variable in your script.

  b. Reactivate the script.

  c. Create the new Item variable.

  d. Replace the Set variable in the script with the Item variable.

  e. Remove the comments.

  f. Reactivate the script.

- Delete the Assigned/Assigned To statement from the scripts. The preceding examples can be revised as follows:

  ```
  /*ASSIGN Sales_sk TO My_Skillsets*/
  QUEUE TO SKILLSET My_Skillsets
  ```

  where My_Skillsets is a call variable of type SET and initialized to Help_sk, Services_sk, and so on.

  Note: If you choose this option, calls are queued to all the skillsets to which the call variable of type Set has been initialized.

5 Validate and activate the edited scripts.

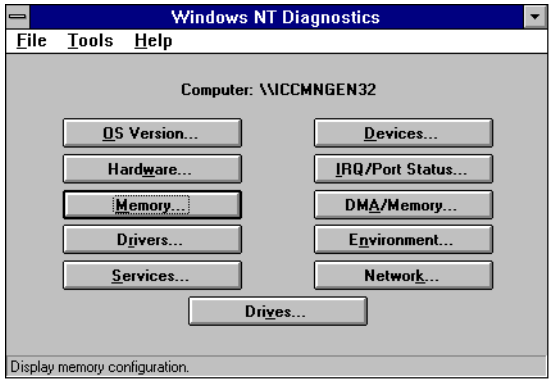
6 Repeat step 6 on page 178 to recheck the scripts.

To check available memory

1 In the Program Manager window, double-click Administrative Tools.

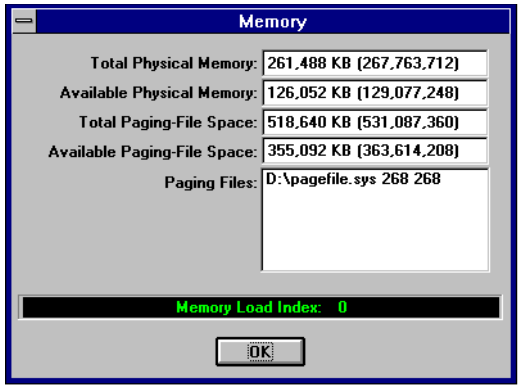
2 In the Administrative Tools window, double-click Windows NT Diagnostics.

Result: The Windows NT Diagnostics window appears.



3 Click Memory.

Result: The Memory dialog box appears.


Memory
Total Physical Memory: 261,488 KB (267,763,712)
Available Physical Memory: 126,052 KB (129,077,248)
Total Paging-File Space: 518,640 KB (531,087,360)
Available Paging-File Space: 355,092 KB (363,614,208)
Paging Files: D:\pagefile.sys 268 268
Memory Load Index: 0
OK

4 Make sure total physical memory is greater than 256 000 kbytes.

5 Click OK to close the Memory dialog box.

6 Choose File → Exit to close the Windows NT Diagnostics window.

To create a Platform Recovery disk on a Release 1.5 server

1 Insert a disk into the floppy drive.

2 Open the SysOps Utilities program folder and double-click Migration.

3 Select Dump system information to floppy disk and click Continue.

Result: The program prompts you to insert a disk.

4 Click OK.

Result: The program saves the configuration to the disk, and displays messages telling you that the save is complete.

5 Click OK in response to these messages.

Result: The program prompts you to remove the disk.

6 Click OK.

7 For reference during the conversion, print the file Miginfo.txt, located on the disk.

8 Label the disk with “Platform Recovery Disk Release 1.5” and the current date, and store it in a safe place.

Ensuring you have a current database backup

Before you continue, make sure you have a current database backup of the server. For more information, refer to the Release 1.5 *Backup and Restore Instructions*.

Splitting the RAID drives

When you split the RAID drives, you are breaking the mirrored image of the primary hard drives and disabling their redundant hard drives. Any software activity that is performed on the system affects only the primary set of hard drives. The disabled drives continue to have the current system configuration, and you can use them to rebuild the RAID hard drives if a problem occurs during conversion.

For more information, refer to Chapter 11, “Backing up data.”

Note: If extra RAID drives are available, you can also create a RAID backup before continuing with the conversion. If you create a RAID backup, you might want to do this before the conversion since a RAID backup can take several hours to complete.

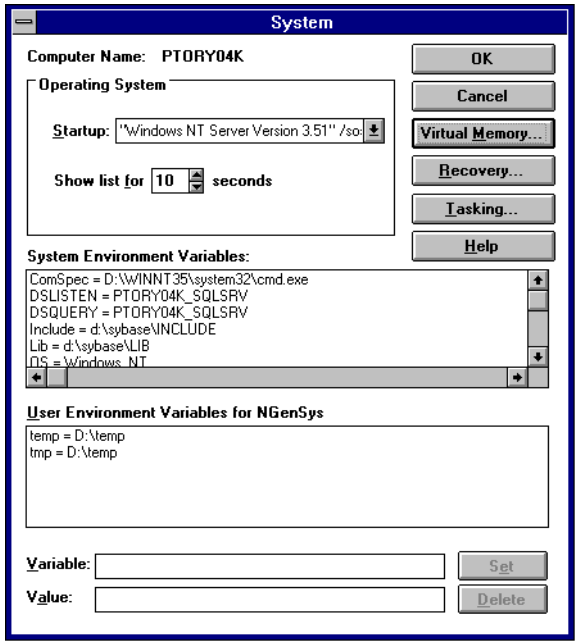
To move the swap file

Note: Perform this procedure if your swap file is on drive D.

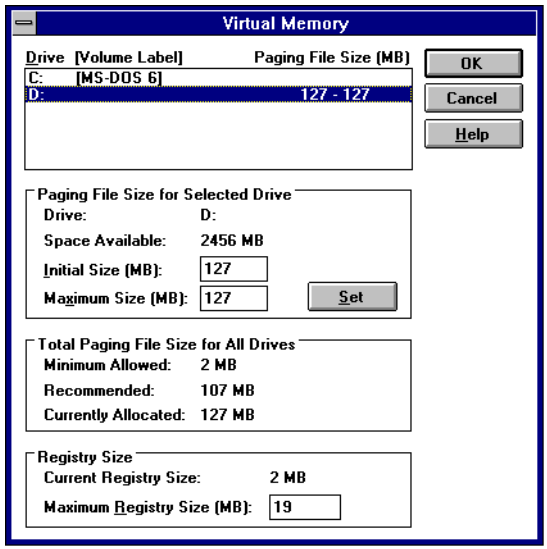
1. Log on to Windows NT as Administrator.
2. In the Program Manager window, double-click Main.
3. In the Main window, double-click Control Panel.

4 In the Control Panel window, double-click System.

Result: The System dialog box appears.



5 On the System dialog box, click Virtual Memory.



Notes:

- The drive specified in the Paging File Size for Selected Drive box is the drive on which the swap (paging) file resides.
  - If the specified drive is not drive D, you do not need to move the swap file. Click Cancel to close the Virtual Memory window and click Cancel to close the System Properties window.
  - If the specified drive is drive D, click Cancel to close the Virtual Memory window, and continue with the following steps.
- The drives displayed on this dialog box vary depending on the hardware platform.

6 On the System dialog box, click Recovery.

7 Ensure the Write debugging info to: check box is unchecked.

8 Click OK.

9 On the System dialog box, click Virtual Memory.

10 In the Virtual Memory dialog box, select drive F, or the first available drive after drive D.

11 Ensure that the selected drive has at least 288 Mbytes of available disk space. If not, repeat step 10 to select the next available drive.

Notes:

- If none of the drives have sufficient space, contact your Nortel Networks Customer Support representative.
- Use the selected drive only to store the database and the swap file. Do not store trace logs or other data on this drive.

12 Type **268** for Initial Size and **268** for Maximum Size.

13 Click Set.

14 Select drive D.

15 Enter 0 for Initial Size and 0 for Maximum Size.

16 Click Set.

Note: If you see the following message, click OK:

```
If the pagefile on volume D has an initial size of less
than 268 MB, then the system is unable to create a
debugging information file if a STOP error occurs.
```

17 Click OK to apply the changes.

18 Click OK to close the System Properties window.

Result: The program prompts you to restart.

19 Click Don't Restart Now (you will restart the server later), and continue with the following procedure.

Note: When you install the PEPs after the conversion, you install a PEP that ensures that alarms for the drive to which you moved the swap file do not sound unless free space falls below a predetermined level.

To uninstall pcAnywhere 8.0

1 Log on to Windows NT as Administrator (or another user with administrator access).

2 Right-click the pcAnywhere Waiting icon on your desktop, and then select Close.

3 From the Program Manager, double-click pcAnywhere.

4 Double-click Remove pcAnywhere.

5 When the message `pcAnywhere will be removed from the following directory` appears, click Yes to continue.

6 Follow the instructions on the screen to uninstall pcAnywhere.

7 If the message `The system indicates that the following shared file is no longer used by any programs` appears, respond in one of the following ways:

- For files in \Program Files\Common Files\Symantec\Shared\ folder, click Yes.
- For files in the WINNT35\System32 folder, click No.

Result: pcAnywhere is removed.

8 When the message `Uninstall completed. Some elements could not be removed.` appears, click OK.

9 When the message `pcAnywhere has been uninstalled from your computer. Do you wish to reboot now?` appears, select Yes to restart the server.

Note: If the server does not restart, you must restart it manually.

To check your video adapter

To avoid problems during the operating system conversion, make sure that the video adapter installed on the server PC is a VGA-compatible Display Adapter. To check the adapter and change it, if necessary, follow these steps.

Note: The VGA-compatible Display Adapter driver is available on the Symposium Call Center Server Operating System CD for Release 1.5.

1 Log on to Windows NT as NGenSys.

2 In the Program Manager window, double-click Control Panel.

3 Double-click Display.

4 On the Display Settings dialog box, click Change Display Type.

5 On the Display Type dialog box, check the Adapter Type.

Note: If your video adapter is not VGA-Compatible Display Adapter, follow these steps:

a. In the Adapter Type box, click Change.

b. Select VGA-Compatible Display Adapter and click OK.

Result: A message appears: `This operation will change your system configuration. Do you want to proceed anyway?`

c. Click Yes.

Note: If the message `The driver(s) for this display are already on the system`, appears click New to continue.

Result: A message appears: `Insert the CD you want to copy files from.`

d. Insert the Symposium Call Center Server Release 1.5 Operating System CD and browse to the \I386 directory.

Result: The program copies the driver to your system. A message appears, notifying you that the drivers have been updated.

6 Click OK to exit the control panel.

7 When prompted, click OK to restart the server PC.

Result: After restart, the system prompts you to change the display resolution.

8 Click OK.

9 Repeat steps 1 to 4 to view the Display Type window.

Result: The adapter type listed should be VGA-Compatible Display Adapter.

10 Click Cancel twice to exit from the control panel.

To ensure that sufficient disk space is available

1 Log on to Windows NT with the username **NGenSys** and the password **_ _ngen!**

2 In the Program Manager window, double-click Main.

3 In the Main window, double-click File Manager.

4 Select drive D.

5 Check the status bar at the bottom of the File Manager window to find out how much disk space is free.

Drive D must have at least 256 Mbytes available. If it does not, delete unnecessary files, such as trace and log files.

To perform the preconversion

1. Ensure that the server is fully functional and that all services are up and running, and then exit SMonW.
2. Open the SysOps Utilities folder, and double-click SysOps Check.
3. Follow the instructions on the screen.

   Note: If the utility reports any errors (such as a site name that contains spaces), correct them before continuing.
4. Insert the Symposium Call Center Server Release 4.0 Server Application CD into the CD-ROM drive, or map a connection to the related virtual CD.
5. In the Program Manager window, double-click Main.
6. In the Main window, double-click File Manager.
7. Click on the CD-ROM drive icon (drive E).
8. Double-click setup.exe.

   Result: The Conversion window appears.
9. Click Begin Conversion.

   Result: A window appears to remind you that no other applications can be running.

10 Close any active applications running on the server, including screen savers, and then click Yes to begin the preconversion.

CAUTION

Risk of data loss

The preconversion can take up to three hours, depending on the size of your database. Do not stop the conversion manually. If you stop the conversion, restore Symposium Call Center Server 1.5 and begin the conversion again. For more information on restoring, refer to the Release 1.5 *Backup and Restore Instructions*.

Result: The following message appears: `The run-time of the Pre-Conversion Utility is dependent on the database size. Pre-Conversion will take AT LEAST 1 hour to complete. Please wait and don't attempt to stop the Pre-Conversion manually while Pre-Conversion is running. Click 'OK' to start Pre-Conversion.`

11 Click OK.

ATTENTION

If Dr. Watson displays Error code 87 while shutting down services, click OK and ignore these error messages. They do not impact the preconversion.

Result: The preconversion begins, and a progress bar appears. The preconversion process takes at least one hour to complete. *Do not* run any operations or open any windows while the Pre-Conversion is running. If you do this, it blocks the Pre-Conversion dialog box with the status indication, and the status takes some time to be refreshed.

12 When the message `PreConversion Complete...` appears, click OK.

To upgrade from Windows NT 3.51 to Windows NT 4.0

Note: You can get a list of compatible drivers from your regional Symposium Call Center Server technical web site.

1. Insert the Symposium Call Center Server Release 4.0 Operating System CD Version 1.0 into the CD-ROM drive and the WinNT 4.0 OS Setup Boot Disk #1 into drive A.
2. In the Program Manager window, choose File → Shutdown → Shutdown & Restart.
3. After the server restarts, follow the instructions on the screen.
4. When the message `Please insert the disk labeled Windows NT Server Setup Disk #2 into Drive A:` appears, insert the Windows NT Server Setup Disk #2 into Drive A, and then press Enter.
5. When the message `Welcome to Setup. The Setup program…` appears, press Enter to set up Windows NT.
6. When the message `Setup automatically detects floppy disk controllers and standard ESDI/IDE hard disks without user intervention` appears, type **S** to skip the mass storage device detection.
7. To install the IDE CD-ROM driver, follow these steps:
   a. Type **S** to specify additional SCSI adapters, CD-ROM drivers, or special disk controllers.

      Result: A list of controllers appears. Use the up and down arrow keys to view the complete list.

   b. Scroll through the list of controllers, select IDE CD-ROM (ATAPI 1.2)/ PCI IDE Controller, and press Enter.

   c. When the message `Please insert the disk labeled Windows NT Server Setup Disk #3 into Drive A:…` appears, insert the Windows NT Server Disk #3 into Drive A, and then press Enter.
8. To install other drivers, such as RAID or SCSI drivers, follow these steps:
   a. Type **S** to select additional SCSI adapters, CD-ROM drivers, or special disk controllers.

      Result: A list of controllers appears. Use the scroll bars to view the complete list.

   b. Select Other (Requires disk provided by a hardware manufacturer), and then press Enter.

c. Insert the disk containing the device drivers, and then press Enter.

Example: For a 1003t RAID system, you insert disk number NTRH8036.

Note: Make sure you choose the correct drivers for your hardware platform.

d. Select the mass storage device that you want, and then press Enter.

Example: For a non-1003t RAID system, select Mylex DAC 960.

9 If necessary, repeat step 8 to install additional SCSI drivers.

10 When the message `Setup has recognized the following mass storage devices in your computer:` appears, press Enter to continue setup.

11 When the message `Please insert the disk labeled Windows NT Server Setup Disk #3 into Drive A:` appears, insert the Windows NT Server Disk #3 into Drive A, and then press Enter.

Note: If the setup program detects that one or more of the hard disks in the system has more than 1024 cylinders, a warning message appears. Press Enter (do not press N) to continue.

12 When the message `Windows NT Licensing Agreement` appears, press the Page Down key and read the entire agreement. Then, to accept the agreement, press F8 to continue the setup.

13 When the message `Setup has found Windows NT on your hard disk in the directory shown below.` appears, press Enter to upgrade Windows NT in the specified directory.

Note: Some WINNT35 directories might use a different drive letter.

14 When the message `Setup will now examine your hard disk(s) for corruption` appears, press Enter to allow Setup to perform an exhaustive secondary examination of your hard disks.

Result: Setup copies files to your hard disk.

15 When prompted, insert the disk from step 8c into drive A, and then press Enter.

16 If the message `Setup has determined that the following file did not originate from Microsoft:…` appears, press Esc after each message to keep the original third-party file.

17 When the message `This portion of Setup has completed successfully. If there is a floppy disk inserted in`

`drive A:, remove it` appears, remove the disk from drive A and the Symposium Call Center Server Release 4.0 Operating System CD Version 1.0 from the CD-ROM drive.

18 Press Enter to restart the server. When your computer restarts, Setup continues.

ATTENTION

If you did not uninstall pcAnywhere, an error message `Missing DISPLAY_DRIVER.DLL` appears. If this happens, restore Symposium Call Center Server 1.5, uninstall pcAnywhere, and begin the conversion process again. For information on restoring Release 1.5, refer to the Symposium Call Center Server 1.5 *Backup and Restore Instructions*.

19 Insert the Symposium Call Center Server Release 4.0 Operating System CD Version 1.0 into the CD-ROM drive again, and continue the setup after restart by following the screen instructions.

20 When the message `Welcome to the Windows NT Setup Wizard, which will guide you through the rest of Setup. To continue, click Next` appears, click Next.

21 At the prompt `Please locate your 20 digit 'Product ID'`, type in the Windows NT 4.0 OS Product ID, located on the Certificate of Authenticity, and click Next.

22 When the message `Setup can create an emergency repair disk` appears, select No, do not create an emergency repair disk, and then click Next.

23 When the message `Windows NT comes with a variety of optional components, including games, disk tools, and other accessories` appears, select Install the most common components (recommended), and then click Next.

24 When the message `Setup is now ready to guide you through installation of Windows NT Networking` appears, click Next to continue.

25 When the message `Windows NT will now upgrade your network components` appears, click Next to continue.

Notes:

- If the message `The following non-Microsoft networking component is installed on this computer` appears, click OK. The specified component might be a 3COM or Intel component.
- If you see an application error message, record the message and click OK to continue.

26 When the message `Setup is almost finished. After you answer a few more questions…` appears, click Finish to complete the setup.

Result: Completion of setup takes from 5 to 10 minutes.

Note: If messages regarding unsupported components appear, then click OK to continue.

27 When the message `Windows NT has been successfully upgraded to version 4.00…` appears, remove the CD from the CD-ROM, and then click Restart Computer to restart the server.

Note: If the message `missing config.exe` appears, then click Cancel to continue.

To install Windows NT Server 4.0 Service Pack 6A

1 Log on to Windows NT as Administrator.

2 Insert the Symposium Call Center Server Release 4.0 Platform Support CD Version 1.0 into the CD-ROM drive. (Currently, Symposium Call Center Server supports only Service Pack 6A.)

3 If the Windows NT Setup splash screen appears, click Close to close the screen.

4 From the Start menu, choose Programs → Windows NT Explorer.

Result: The Windows NT Explorer screen appears.

5 Click the plus sign (+) next to the CD-ROM drive to display its subdirectories.

6 Select the directory containing the Service Pack (E:\Service Pack 6A\US-40bit, where E is your CD-ROM drive).

7 Run Sp6ai386.exe and follow the screen instructions.

8 When the message `Welcome to Service Pack 6 Setup` appears, select Accept the Licence Agreement, and then click Install to install the Service Pack on your computer.

9 When the message `Windows NT 4.0 Service Pack installation is complete` appears, select Restart to restart the computer.

Result: The computer restarts.

To remove Microsoft Internet Information Server

1 If Microsoft Internet Information Server (MIIS) is installed automatically during the operating system conversion, go to Start → Programs → Microsoft Internet Server (Common), and then choose Internet Information Server Setup to remove MIIS.

2 When the MIIS welcome dialog box appears, click OK.

3 When the MIIS Installation Maintenance program appears, click Remove All to remove previously installed components.

4 When the message `Are you sure that you want to remove all the MIIS components` appears, click Yes to continue.

5 When the message `Microsoft FTP Publishing Service is running. Do you want to stop the service?` appears, click Yes.

6 When the message `Microsoft Internet Information Server 3.0 setup has updated successfully` appears, click OK to complete the removal of MIIS.

To install the DMI

1 Log on to Windows NT as Administrator.

2 Insert the Symposium Call Center Server Application CD into the CD-ROM drive or map a connection to a virtual CD.

3 Exit all applications, including screen savers, and close all windows.

4 From the Windows Start menu, choose Run.

5 Click Browse, select Setup.exe from the root directory on the CD, and click OK.

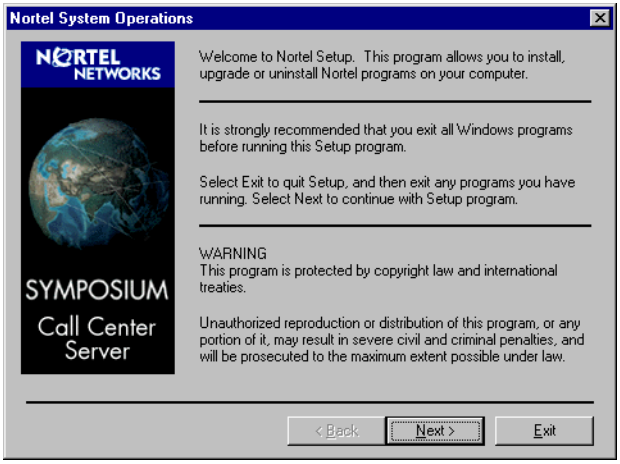
Note: The Welcome screen can take several minutes to display.

6 Click OK to run.

Result: The program displays the message `Setup determines that DMI is not installed on your system. Do you want Setup to install DMI?`

7 Click Yes to install the DMI. (If you click No, the installation stops.)

Result: The DMI installs and the Nortel System Operations welcome dialog box appears.


Nortel System Operations
NORTEL NETWORKS
SYMPOSIUM
Call Center Server
Welcome to Nortel Setup. This program allows you to install, upgrade or uninstall Nortel programs on your computer.
It is strongly recommended that you exit all Windows programs before running this Setup program.
Select Exit to quit Setup, and then exit any programs you have running. Select Next to continue with Setup program.
WARNING
This program is protected by copyright law and international treaties.
Unauthorized reproduction or distribution of this program, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under law.
< Back
Next >
Exit

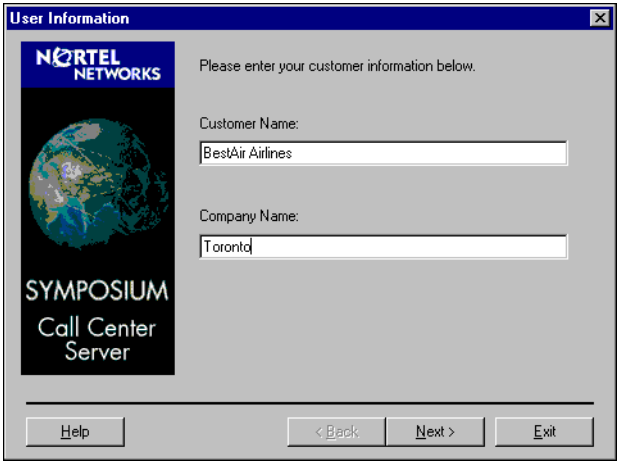
8 Click Next.

Result: The Setup Choices dialog box appears.

9 Click Install/Upgrade.

Note: If a warning message appears because drive D has less than 512 Mbytes free, click Yes to continue.

Result: Setup copies files to the server, and then the User Information dialog box appears.



10 Make sure that the customer and company names are correct, and then click Next.

Result: The program installs the software and displays the message `Setup is about to reboot the system. Please continue installation after reboot.`

11 Click OK.

Result: The system restarts and logs on again automatically.

To install the Symposium Call Center Server software

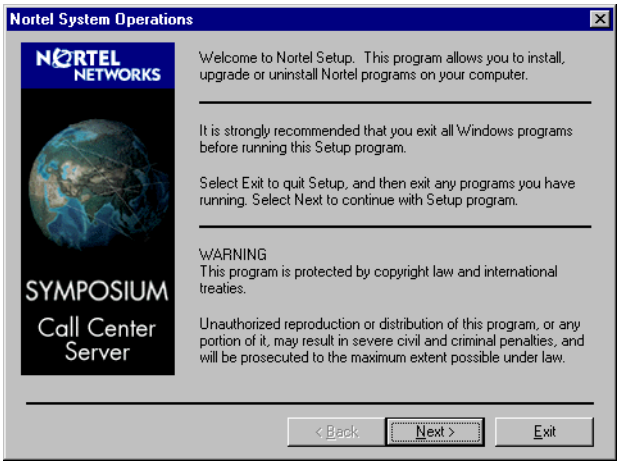
1 Exit all applications, including screen savers, and close all windows.

2 From the Windows Start menu, choose Run.

3 Click Browse, and then select Setup.exe from the root directory on the Server Application CD.

4 Click OK to run.

Result: The Nortel System Operations welcome dialog box appears.


Nortel System Operations
NORTEL NETWORKS
SYMPOSIUM
Call Center Server
Welcome to Nortel Setup. This program allows you to install, upgrade or uninstall Nortel programs on your computer.
It is strongly recommended that you exit all Windows programs before running this Setup program.
Select Exit to quit Setup, and then exit any programs you have running. Select Next to continue with Setup program.
WARNING
This program is protected by copyright law and international treaties.
Unauthorized reproduction or distribution of this program, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under law.
< Back
Next >
Exit

5 Click Next.

Result: The Setup Choices dialog box appears.

6 Click Install/Upgrade.

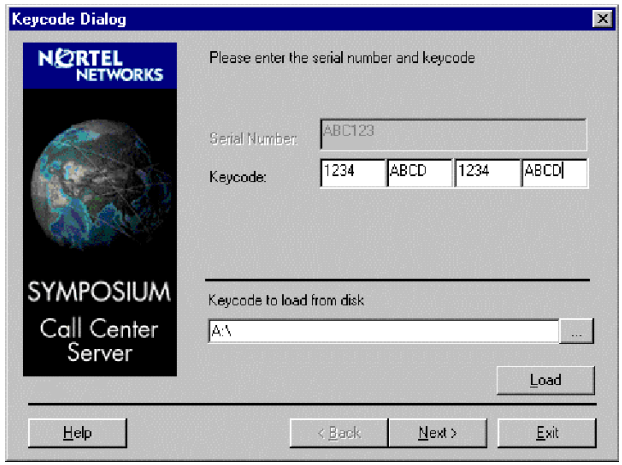
Note: If the following message appears, then click Yes to continue:

```
Setup has found out that this drive "C:\" has less than
64 Mbytes of free space. Do you still want to continue?"
```

Result: Setup copies files to the server, and then the User Information dialog box appears.

7 Make sure that the customer and company names are correct, and then click Next.

Result: The Keycode Dialog box appears.



8 Enter the keycode for Release 4.0 in one of the following ways and then click Next.

- If you have a disk that contains your keycode information, follow these steps:

  a. Insert the keycode disk into the floppy drive.

  b. Click the (...) button to open a browse dialog box.

  c. Locate and select the file that contains the keycode information and click Load.

  Result: The keycode and serial numbers are entered into the Keycode Dialog box.

- If your keycode information is stored on a hard disk, follow these steps:

  a. Click the (...) button to open a browse dialog box.

  b. Locate and select the file that contains the keycode information and then click Load.

  Result: The keycode and serial number are entered into the Keycode Dialog box.

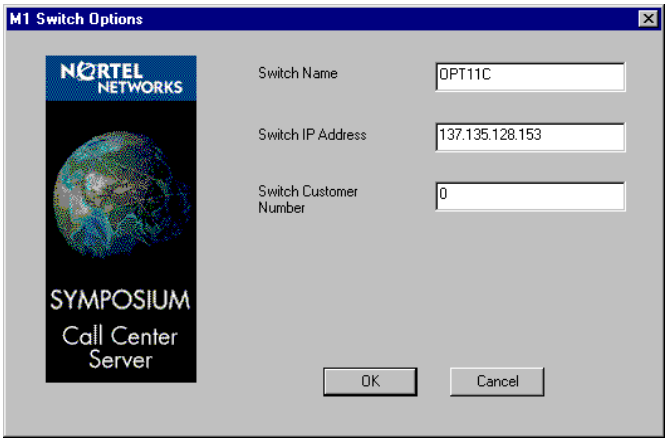
- Type your keycode in the appropriate boxes.

Result: The Verify Keycode Information dialog box appears.

9 Check that all keycode information is correct. If it is not correct, then click Back to change it (go to step 8). Otherwise, click Next.

10 Click Next.

Result: The M1 Switch Options dialog box appears.



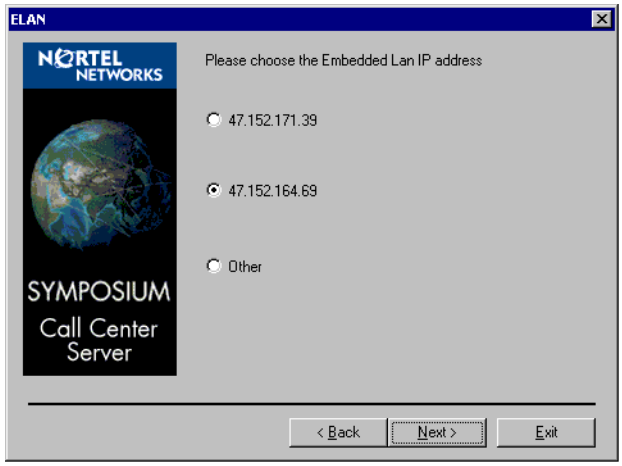
11 Enter the appropriate information for your switch. Refer to the information you entered in Appendix A, “Worksheets,” and to the following restrictions that apply to switch names:

- Valid characters for switch names are A–Z, a–z, 0–9, _ (underscore) and . (period).
- Switch names must begin with an alphabetic character, and they cannot contain spaces.
- The last character must not be an underscore or a period.
- Switch names must not exceed 80 characters in length.

Tip: If you are unsure of the correct information or if you make a mistake, you can change the switch information after you finish the installation (see “Feature Report” on page 453).

12 Click Next.

Result: The ELAN dialog box appears.



13 Enter the ELAN TCP/IP address for the server in one of the following ways, and then click Next:

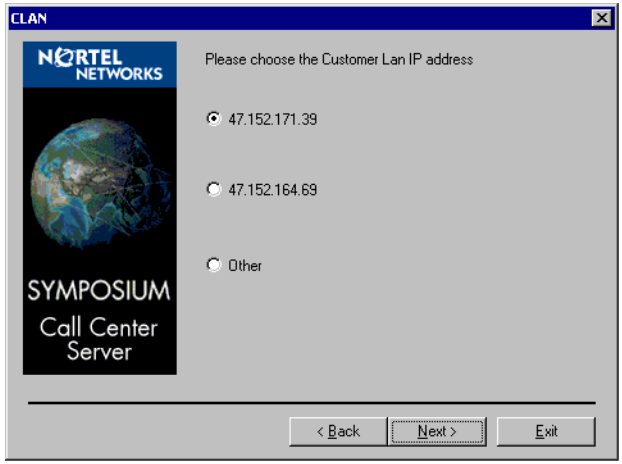
- If the address appears in the dialog box, select it.
- If the ELAN TCP/IP address does not appear in the dialog box, select Other, and enter the correct IP address in the dialog box that appears.

- If you are configuring a Network Control Center server, you do not need to connect the ELAN network interface card to the ELAN cable. However, to ensure proper functionality, enter an IP address for the ELAN network interface card that is not used elsewhere in the network.

ATTENTION

If your NCC server has only one network interface card, enter the CLAN address for both the ELAN prompt and the CLAN prompt.

Result: The CLAN dialog box appears.

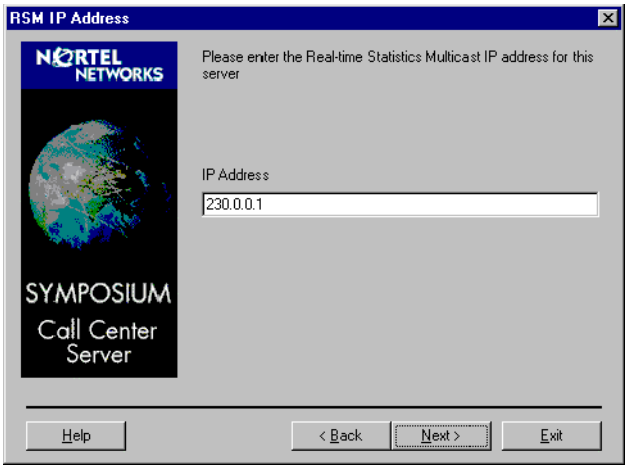


14 Enter the CLAN TCP/IP address for the server in one of the following ways, and then click Next.

- If the address appears in the dialog box, select it.

- If the CLAN TCP/IP address does not appear in the dialog box, select Other, and enter the correct IP address in the dialog box that appears.

Result: If the optional RSM feature is enabled for your server, the RSM IP Address dialog box appears. Continue with the following step. If this feature is not enabled, the Verify Setup Information dialog box appears. Skip to step 16.



15 Enter the IP address of the RSM server (the server to which the Symposium Call Center Servers in your network send real-time statistics), and click Next.

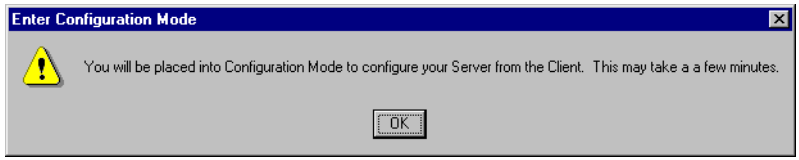
Result: The Verify Setup Information dialog box appears.

16 Examine the list of current settings. If they are incorrect, click Back and make the necessary corrections. Otherwise, click Next.

17 Click Next.

Result: Any existing patches on the system are uninstalled; the program begins to copy files to the hard drive and a progress bar appears. The program automatically fills dialog boxes. The keyboard and mouse are disabled during this portion of the setup.

When this step is completed, the Enter Configuration Mode message appears.


Enter Configuration Mode
You will be placed into Configuration Mode to configure your Server from the Client. This may take a a few minutes.
OK

18 Click OK.

Result: The setup program validates scripts and puts the server into configuration mode.

19 Click OK to finish the conversion.

Result: The program prompts `In order to recover the Symposium Call Center Server from catastrophic failure or to migrate to a difference platform using the database tape, the Platform Recovery disk must be available....`

20 Click Yes.

ATTENTION

If you click No, the program prompts `You have selected not to create the Platform Recovery disk at this time....` Remember to use the Migration utility to create a Platform Recovery disk when the installation is complete. (For more information on the migration utility, see “Migration” on page 458.) Skip to step 27.

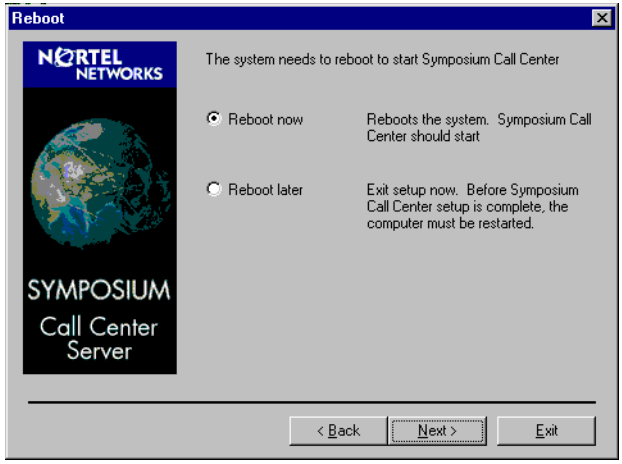
Result: The program prompts `Label a floppy disk “Platform Recovery Disk” and insert it into drive A:.`

21 Insert a blank formatted disk in the floppy drive, and then click Yes.

Result: The program prompts `The Platform Recovery disk has been successfully created....`

22 Click OK, remove the disk, label it “Platform Recovery Disk (R4.0),” and store it in a safe place.

Result: The Reboot dialog box appears.


Reboot
NORTEL NETWORKS
The system needs to reboot to start Symposium Call Center
Reboot now
Reboots the system. Symposium Call Center should start
Reboot later
Exit setup now. Before Symposium Call Center setup is complete, the computer must be restarted.
SYMPOSIUM
Call Center Server
< Back
Next >
Exit

23 Select Reboot later, and then click Next.

24 Open a Command window by choosing, from the Windows Start menu, Programs → Command Prompt.

25 In the Command window, make drive D the current drive by typing **d:** and pressing Enter.

26 Change to the bin directory by typing the following command and pressing Enter:

cd\Nortel\iccm\bin

27 Type the following command and press Enter:

serman manual

28 Do not restart the server now. Continue with the next section, “To change the video drivers” on page 206.

To change the video drivers

Note: The video driver for the 1003t platform is on the HP NetServer Navigator CD. Video drivers for other platforms are on the Symposium Call Center Server Release 4 Platform Support CD. For more information about your video driver, check your regional Symposium Call Center Server technical web site. Refer to the manufacturer's documentation for drivers not supplied by Nortel Networks.

1. Open the Control Panel (from the Windows Start menu, choose Settings → Control Panel).
2. Double-click Display.
3. Click the Settings tab.
4. Click Display Type.

   Result: The Display Type window opens.
5. If you are using a 1003t platform, follow these steps. If you are using a 701t, 702t, 1000t, or 1001t platform, go to step 6.
   a. In the Adapter Type group box, click Change.

      Result: The Change Display dialog box appears.
   b. Insert the HP NetServer Navigator CD.
   c. If the HP NetServer Diskette Library opens, click Exit.
   d. In the Change Display dialog box, click Have Disk.

      Result: The Install from Disk dialog box appears.
   e. Browse to E:\periph\cl54x2\nt40\video (where E: is your CD-ROM drive).
   f. Click OK.

      Result: A dialog box displaying available drivers appears.
   g. Select the Cirrus Logic driver and click OK.

      Note: If the message `You are about to install a third-party driver` appears, click Yes to continue.

      Result: The driver is copied to your system. A message appears, notifying you that the driver has been installed.
6. If you are using a 701t, 702t, 1000t, or 1001t platform, follow these steps. If you are using a 1003t platform, go to step 7.

a. Insert the Symposium Call Center Server Release 4.0 Operating System CD, Version 1.0.

b. In the Display Type dialog box, click Detect.

Result: A warning message appears.

c. Click Yes to proceed with detection.

Result: The driver is copied to your system. A message appears, notifying you that the driver has been installed.

7 Click OK.

8 Click Close to close the Display Type dialog box.

9 Click Close to close the Display Properties dialog box.

Result: The system prompts you to restart the server PC.

10 Click Yes.

11 If your platform is not a 1003t, the system displays a message that the system found the Cirrus Compatible Display Adapter on your machine. Click OK.

12 When the system prompts you to change the display resolution, click OK.

13 Repeat steps 1 to 4 to view the Display Type window.

Result: For the 1003t platform, the adapter type listed should be Cirrus Logic CL-GD5446 Graphics Adapter 1.41. For all other platforms, it should be cirrus compatible display adapter.

14 Click Cancel twice to exit from the control panel.

Installing and configuring pcAnywhere version 9.2

CAUTION

Risk of system failure

Make sure that before you reinstall pcAnywhere, the proper video driver for your platform is installed (see the preceding procedure). Failure to do so can result in the appearance of a blue screen after pcAnywhere version 9.2 installation or after use of pcAnywhere for operations such as file transfer.

Install and configure the pcAnywhere software, following the instructions in Chapter 3, “Installing and configuring pcAnywhere.”

Checking for PEPs and Service Update packs

Extract and install the latest available software PEPs and Service Update packs now. For more information, see “Overview” on page 116.

To create an emergency repair disk

1. Log on to Windows NT as Administrator, using password abc123.
2. From the Windows Start menu, choose Run.
3. Type **rdisk /s** and click OK.
4. When prompted, insert a blank floppy disk into drive A to create the emergency repair disk, and follow screen instructions. For more information on updating the emergency repair disk, see “Updating the emergency repair disk” on page 65.

To enable RSM (optional)

If you installed RSM on your server, you must enable the RSM service to provide moving window and interval-to-date statistics for multicast real-time displays. For instructions on enabling RSM, see “Modifying Real-time Statistics Multicast settings” on page 471.

To configure SNMP (optional)

If you are using the Windows NT SNMP service to forward traps to an NMS, you must perform these tasks:

- Configure the Windows NT SNMP service on the server (see "To configure the Windows NT SNMP service to forward traps to an NMS" on page 305).
- Select the types of events to be forwarded to the NMS (see "To select the types of events to be forwarded" on page 306).
- Configure the NMS (see "Configuring the NMS" on page 307).

Backing up the server

Create a a database backup (see Chapter 11, "Backing up data").

Ensuring that Symposium Call Center Server services are started

If you can see the SMonW window, check that all of the services are started. If this window is not open, or if some services are not started, then run the Startup utility (from the Windows Start menu, choose Programs → Symposium Call Center Server → Startup).

Note: If the TFE service does not start up, the syntax in one or more of your scripts is invalid. Validate your scripts (see the *Scripting Guide*).

Converting the client PC

Go to "Converting the client from a previous release to Release 4.0" on page 259 and begin the client PC conversion.

Rebuilding the RAID drives

If you have split the RAID drives, rebuild the RAID drives when you are confident of the conversion and server operation. For more information, See Chapter 12, "Restoring data."

If you must restore the Release 1.5 server

You can restore your 1.5 system in one of the following ways:

- For non-RAID systems, use the platform recovery disk and database restore. Refer to the Release 1.5 *Backup and Restore Instructions*.
- For RAID systems, follow the procedure for recovering an entire RAID system in Chapter 12, “Restoring data.”

Performing server software conversions from Release 3.0 to Release 4.0

When to use

Follow this procedure to perform a conversion of the server from Symposium Call Center Server Release 3.0 to Symposium Call Center Server Release 4.0.

ATTENTION

You cannot perform a conversion from Symposium Call Center Server Release 1.0 or 1.1 to Symposium Call Center Server Release 4.0. You must first upgrade to Release 1.5, and then perform a conversion to Release 4.0.

To perform a conversion from Release 1.5, (see "Converting from Release 1.5 to Release 4.0" on page 168)

To reinstall the current version of the server software or add features, see "Reinstalling server software" on page 231.

Notes:

- You cannot downgrade to a previous version of Symposium Call Center Server software.
- If the conversion process is not successful, you can restore your Release 3.0 system by following the procedures in Chapter 12, "Restoring data."

Changing switch types

You cannot change to a different switch type—for example, from a Meridian 1 switch to a DMS/MSL-100 switch. To use a different switch type, you must uninstall (see "Uninstalling server software" on page 242) and then perform a new install (see Section C: "Installing the server software," on page 71). While installing, you must choose the correct switch type.

To convert servers in a Symposium Call Center Server networking environment

If you are performing server conversions in a Symposium Call Center Server networking environment, perform the conversion on the Network Control Center (NCC) server first. After the Network Control Center (NCC) server conversion is complete, perform the following tasks:

1. On the Network Control Center Release 4.0 server, add all of the sites in your multi-site call center. For more information, refer to the *Network Control Center Administrator's Guide*.
2. On the Network Control Center Release 4.0 server, force synchronization of the Address table for all of the sites in your multi-site call center. For more information, refer to the *Network Control Center Administrator's Guide*.

Once the Network Control Center server conversion is complete, you can then perform conversions on the remaining servers in the network. However; after a Symposium Call Center Server Release 3.0 server conversion to Release 4.0 is complete, all of the communication parameters stored on the server are overwritten. To ensure that your Symposium Call Center Server Release 4.0 server can continue to route calls to other sites after a server conversion, you must do the following:

- On the Network Control Center Release 4.0 server, force synchronization of the Address Table for all of the sites in your multi-site call center. For more information, refer to the *Network Control Center Administrator's Guide*.

Script syntax changes

Script syntax rules have changed in Release 4.0. You must ensure that you update the scripts before you convert to Release 4.0. The following script commands have changed in Release 4.0.

- In Release 1.5 it was not necessary to close comments, but in Release 4.0, all comments must be closed.
- Release 4.0 does not support the use of the Assigned/Assigned To commands with a call variable of type Set.
- The With Treatment option is no longer available with the Give Controlled Broadcast and Open Voice Session commands. You must ensure that the Symposium Call Center Server Global Settings are configured with the

Access DN set as the default Treatment DN, and the default IVR DN is the Access DN.

Notes:

For more information about syntax rules, refer to the *Scripting Guide*.

If you are converting from Symposium Call Center Server Release 3.0 to 4.0, use the TFE Syntax Checker Utility to check your scripts. The utility determines whether your scripts adhere to the syntax rules used in Release 4.0. To ensure the utility's functionality, make sure you install Release 3.0 PEP NS030121G095S.

Requirements

Requirements	✔
Nortel Networks Symposium Call Center Server Release 4.0 Platform Support CD Version 1.0 **ATTENTION** If this is not the version of the Platform Support CD that you are using, refer to the *Distributor Technical Reference* (DTR) or to the *Documentation Addendum* before you proceed.	
Nortel Networks Symposium Call Center Server Application CD	
Release 4.0 keycode and serial number	
Two blank disks, for the creation of Platform Recovery disks before and after the conversion	

Before you begin

Step		✔
1	Make sure you have a current database (or, optionally, full) backup of the server. **Time to complete:** approximately 30–90 minutes (depending on the size of your database) **Note:** Before proceding with any backup or restore operation, refer to Chapter 11, “Backing up data,” Chapter 12, “Restoring data,” or required third-party documentation.	
2	If you have a RAID system, Nortel Networks recommends you perform a consistency check of your RAID drives. For more information, see the Release 3.0 *Administrator’s Guide*. (Optional) On a RAID system, if extra RAID drives are available, you might want to create a RAID backup. This can take several hours to complete. For more information, refer to the *Administrator’s Guide.* **Note:** You can perform the consistency check during the conversion when you split the RAID drives, but the check is time-consuming. To save time during the conversion, perform the consistency check in advance.	
3	Obtain the latest Installation Addendums and any required PEPs from your regional Symposium Call Center Server technical web site. North American customers refer to the web site at www.nortel-sccs.com. European customers refer to the Symposium Call Center Server area on the web site at www.nortelnetworks.com/nic.	
4	If you are performing the server conversion from a networked CD on a remote PC, then make sure the remote PC is running Windows NT 4.0 (Server or Workstation) and is accessible over the LAN.	
5	Check your script syntax to make sure it adheres to new syntax rules. Use the TFE Script Checker utility (see page 177).	

Checklist for server software conversion

The following table summarizes all steps involved in performing a server conversion. You must complete all of these steps.

Note: If you are performing conversions on servers in a Symposium Call Center Server network environment, begin with the Network Control Center (NCC).

Steps		✔
1	Obtain the current passwords for the Administrator account and the NGenSys account.	
2	Establish a connection to the server by attaching a keyboard and monitor, or by using pcAnywhere (see page 13).	
3	Create a Platform Recovery disk (see page 216).	
4	Create a database backup (see Chapter 11, “Backing up data”).	
5	Split the RAID drives (see Chapter 11, “Backing up data”). (Optional) On a RAID system, if extra RAID drives are available, you might want to create a RAID backup. This can take several hours to complete. For more information, (see Chapter 11, “Backing up data”).	
6	If the RSM PEP (PEP NS030121L077S and PEP NS030121L070S) is installed on your server, uninstall it (see page 217). Otherwise, go to step 7.	
7	Uninstall pcAnywhere version 8.02 (see page 218). **Time to complete:** approximately 15 minutes	
8	Perform the server software conversion (see page 219).	
9	Install PEPs if a Supplementary CD was provided for the conversion (see page 228). (Also check the web site to ensure that you have the latest PEPs and Service Updates.)	
10	Create a database backup of the server (see Chapter 11, “Backing up data”).	
11	Install and configure pcAnywhere version 9.2 on the server (see Chapter 3, “Installing and configuring pcAnywhere”). **Time to complete:** approximately 15 minutes	
12	Create an emergency repair disk (see page 229).	
13	Ensure that all Symposium Call Center Server services are started (see page 229).	

Steps	✔
14 Continue with the client conversion, if required (see “Converting the client from a previous release to Release 4.0” on page 259).	
15 (Networking option only) After all server conversions are complete, force synchronization of the Address Table information at the NCC (see page 229).	
16 Rebuild the RAID drives when you are confident of system operation (see Chapter 12, “Restoring data”).	

To create a Platform Recovery disk

1. Insert a disk into the floppy drive.
2. From the Windows Start menu, choose Programs → Symposium Call Center Server → Migration.
3. Select Dump system information to floppy disk, and click Continue.

   Result: The program prompts you to insert a disk.
4. Click OK.

   Result: The program saves the configuration to the disk and displays messages telling you that the save is complete.
5. Click OK in response to these messages.

   Result: The program prompts you to remove the disk.
6. Click OK.
7. Label the disk with “Platform Recovery Disk” with the current date, version, and release number, and store it in a safe place.

Ensuring that you have a current database backup

Before you continue, make sure you have a current database backup of the server. For more information, see Chapter 11, “Backing up data.”

Splitting the RAID drives

When you split the RAID drives, you are breaking the mirrored image of the primary hard drives and disabling their redundant hard drives. Any software activity that is performed on the system affects only the primary set of hard drives. The disabled drives continue to have the current system configuration, and you can use them to rebuild the RAID hard drives if a problem occurs during conversion.

For more information, refer to Chapter 11, "Backing up data."

Note: If extra RAID drives are available, you can also create a RAID backup before continuing with the conversion. If you create a RAID backup, you might want to do this before the conversion since a RAID backup can take several hours to complete.

To uninstall the RSM PEP

If the RSM PEP (PEP NS030121L077S and PEP NS030121L070S) has been installed on the server, you must uninstall it before performing the server conversion. If it is not installed, go to the next procedure.

1. From the Windows Start menu, choose Programs → DOS Prompt.
2. Type **d:** and press Enter.
3. Type **cd\nortel\iccm\bin** and press Enter.
4. Type **serman manual** and press Enter.
5. Click OK when the message Services set successfully appears.
6. To exit DOS, type **Exit** and press Return.
7. From the Windows Start menu, choose Programs → Symposium Call Center Server → DMI View.

   Result: The DMI Viewer window appears.
8. Select Symposium Call Center Server.
9. Click Show PEPs.

   Result: The PEPs installed on Symposium Call Center Server are displayed.

10 If PEP NS030121L077S and PEP NS030121L070S are installed, select them, and then click Remove.

Note: If the RSM PEP is not installed, close the window and go to the next procedure.

11 A message `Based on your request...` appears.

12 Click Yes.

Result: The utility removes PEP NS030121L077S and PEP NS030121L070S. Then the message `Setup has finished the uninstall operation and here is the summary` appears.

13 Click OK.

Result: The message `Setup is about to reboot the system after uninstall` appears.

14 Click OK to restart the server.

To uninstall pcAnywhere

Note: Perform the following steps only if the version of pcAnywhere is other than version 9.2. (To check the version number of pcAnywhere software, open pcAnywhere and select About pcAnywhere from the Help menu.) If your version is 9.2, continue with the next procedure.

1 Log on to Windows NT as Administrator (or another user with administrator access).

2 Right-click the pcAnywhere Waiting icon on your desktop, and then select Close.

3 From the Windows Start menu, choose Programs → pcAnywhere.

4 Double-click Remove pcAnywhere.

5 When the message `pcAnywhere will be removed from the following directory` appears, click Yes to continue.

6 Follow the instructions on the screen to uninstall pcAnywhere.

7 If the message `The system indicates that the following shared file is no longer used by any programs` appears, respond in one of the following ways:

- For files in \Program Files\Common Files\Symantec\Shared\ folder, click Yes.

- For files in the WINNT35\System32 folder, click No.

Result: pcAnywhere is removed.

8 When the message `Uninstall completed. Some elements could not be removed.` appears, click OK.

9 When the message `pcAnywhere has been uninstalled from your computer. Do you wish to reboot now?` appears, select Yes to restart the server.

Note: If the server does not restart, you must restart it manually.

To perform the server software conversion

Before any conversion, you should restart your server. (If you uninstalled PEPs or pcAnywhere in the previous procedures and restarted your system, then you do not need to restart the server now.)

ATTENTION

During the conversion, there are times when the setup program performs automatic installation steps in between wizard setup windows. Do not close any windows that appear during these steps. Wait for the next wizard setup window before you use the mouse or keyboard.

1 Log on to the system as NgenSys. If you are already logged on to the system, close all applications, logoff and log back on again as NgenSys.

2 Insert the Symposium Call Center Server Application CD or, if you are installing from a remote CD-ROM or a network share, map the CD to a drive letter on the server.

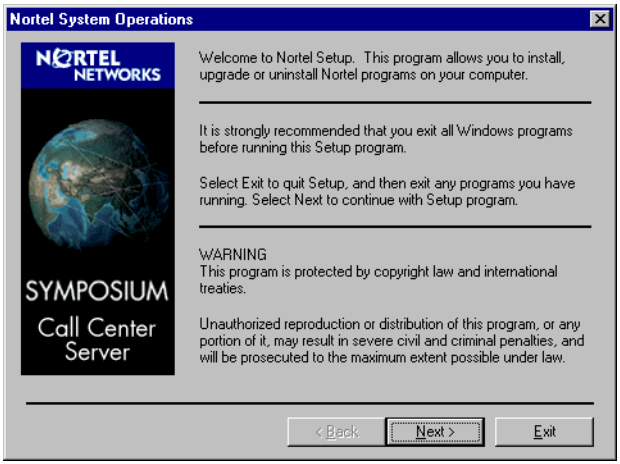
3 Exit all applications, including screen savers, and close all windows.

4 From the Windows Start menu, choose Run.

5 Click Browse, and then select Setup.exe from the root directory on the CD.

6 Click OK to run.

Result: The Nortel System Operations welcome dialog box appears.


Nortel System Operations
NORTEL NETWORKS
SYMPOSIUM
Call Center Server
Welcome to Nortel Setup. This program allows you to install, upgrade or uninstall Nortel programs on your computer.
It is strongly recommended that you exit all Windows programs before running this Setup program.
Select Exit to quit Setup, and then exit any programs you have running. Select Next to continue with Setup program.
WARNING
This program is protected by copyright law and international treaties.
Unauthorized reproduction or distribution of this program, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under law.
< Back
Next >
Exit

7 Click Next.

Result: The Setup Choices dialog box appears.

8 Click Install/Upgrade.

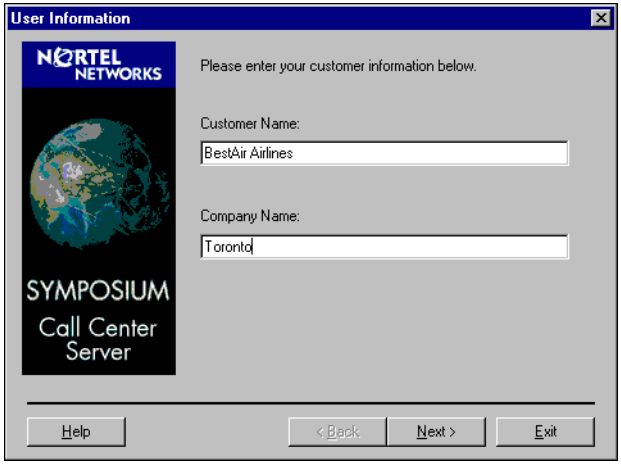
Note: If the following message appears, then click Yes to continue:

```
Setup has found out that this drive “C:\” has less than
64 Mbytes of free space. Do you still want to continue?”
```

9 The program checks for any existing patches and asks if you want to uninstall them.

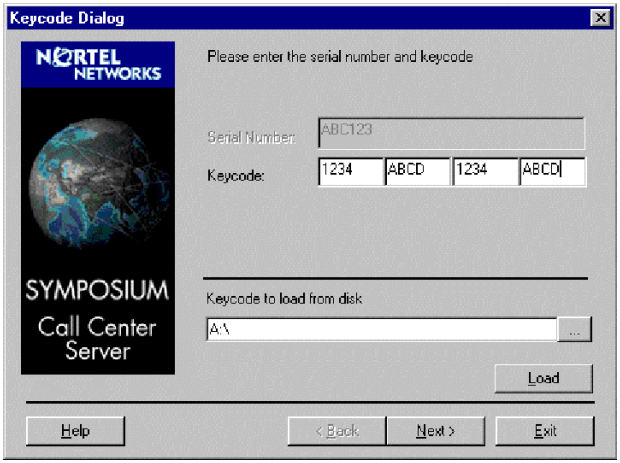
10 Click OK.

Result: Any existing patches applied to the system are uninstalled and the program begins to copy files to the hard drive. When the copy of the files is complete, the User Information dialog box appears.



11 Make sure that the customer and company names are correct, and then click Next.

Result: The Keycode Dialog box appears.



12 If you have a new keycode, enter it in one of the following ways:

- If you have a disk that contains your keycode information, follow these steps:

  a. Insert the keycode disk into the floppy drive.

  b. Click the (...) button to open a browse dialog box.

  c. Locate and select the file that contains the keycode information and click Load.

  Result: The keycode and serial numbers are entered into the Keycode Dialog box.

- If your keycode information is stored on a hard disk, follow these steps:

  a. Click the (...) button to open a browse dialog box.

  b. Locate and select the file that contains the keycode information and click Load.

  Result: The keycode and serial number are entered into the Keycode Dialog box.

- Type your keycode in the appropriate boxes.

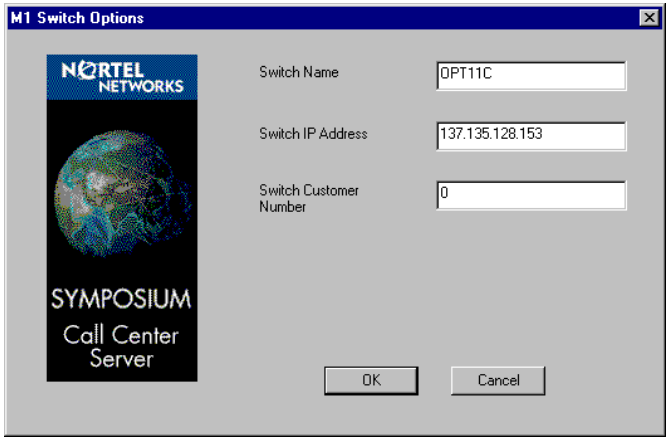
13 Click Next.

Result: The Verify Keycode Information window appears.

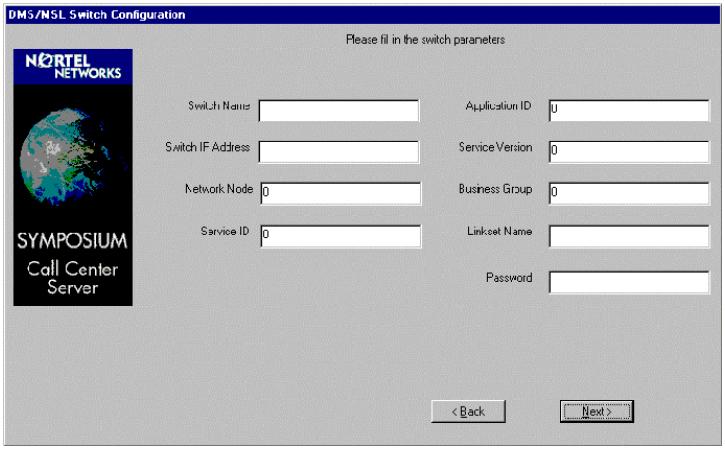
14 Click Next.

Result: Based on the system type that you are installing, one of the following dialog boxes appears:

M1 Switch Options dialog box



DMS/MSL Switch Configuration dialog box



15 Ensure that the switch information is correct. Refer to the information you entered in Appendix A, “Worksheets,” and to the following restrictions that apply to switch names:

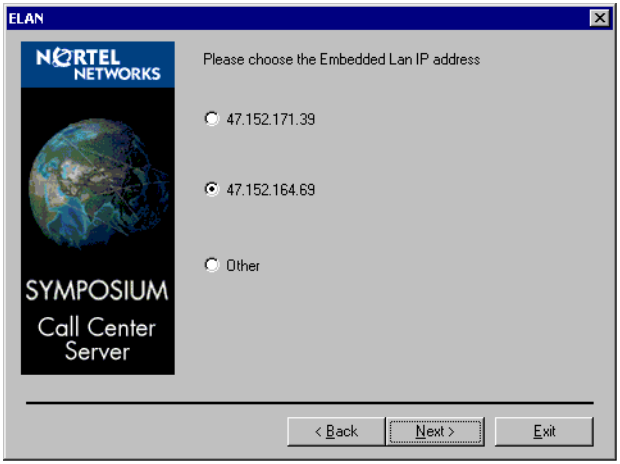
- Valid characters for switch names are A–Z, a–z, 0–9, _ (underscore) and . (period).
- Switch names must begin with an alphabetic character, and they cannot contain spaces.

- The last character must not be an underscore or a period.
- Switch names must not exceed 80 characters in length.

Tip: If you are unsure of the correct information or if you make a mistake, you can change the switch information after you finish the installation (see “Feature Report” on page 453).

16 Click Next.

Result: The ELAN dialog box appears.



17 Ensure that the ELAN TCP/IP address for the server is correct. If necessary, change it in one of the following ways:

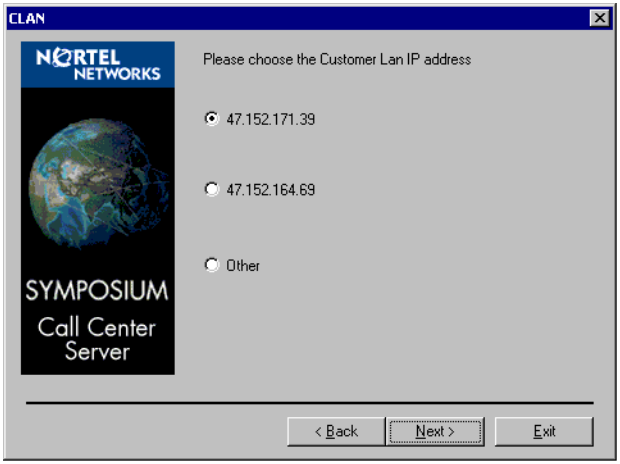
- If the address appears in the dialog box, select it and click Next.
- If the ELAN TCP/IP address does not appear in the dialog box, select Other, enter the correct IP address in the dialog box that appears, and then click Next.

- If you are configuring a Network Control Center server, you do not need to connect the ELAN network interface card to the ELAN cable. However, to ensure proper functionality, enter an IP address for the ELAN network interface card that is not used elsewhere in the network.

ATTENTION

If your NCC server has only one network interface card, enter the CLAN address at both the ELAN prompt and the CLAN prompt.

Result: The CLAN dialog box appears.



18 Ensure that the CLAN TCP/IP address for the server is correct. If necessary, change it in one of the following ways:

- If the address appears in the dialog box, select it and click Next.

- If the CLAN TCP/IP address does not appear in the dialog box, select Other, enter the correct IP address in the dialog box that appears, and then click Next.

Result: If the optional RSM feature is enabled for your server, the RSM IP Address dialog box appears. Continue with the following step. If this feature is not enabled, the Verify Setup Information dialog box appears. Skip to step 20.

19 Enter the IP address of the RSM server (the server to which the Symposium Call Center Servers in your network send real-time statistics), and click Next.

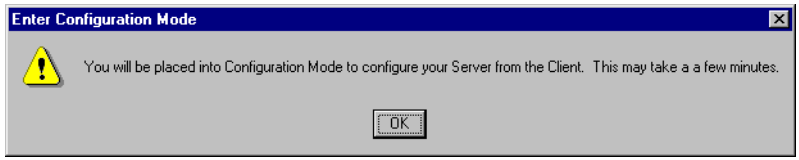
Result: The Verify Setup Information dialog box appears.

20 Examine the list of current settings. If they are incorrect, click Back and make the necessary corrections. Otherwise, click Next.

21 Click Next.

Result: The program begins to copy files to the hard drive and a progress bar appears. The program automatically fills dialog boxes. The keyboard and mouse are disabled during this portion of the setup.

When this step is completed, the Enter Configuration Mode message appears.


Enter Configuration Mode
You will be placed into Configuration Mode to configure your Server from the Client. This may take a a few minutes.
OK

22 Click OK.

Result: The setup program validates scripts and puts the server into configuration mode.

23 If any configuration must be done offline from the switch, do it now. Otherwise, click OK to finish the conversion.

Result: The program prompts `In order to recover the Symposium Call Center Server from catastrophic failure or to migrate to a difference platform using the database tape, the Platform Recovery disk must be available....`

24 Click Yes.

Note: If you click No, the program prompts `You have selected not to create the Platform Recovery disk at this time....` Remember to use the Migration utility to create a Platform Recovery disk when the installation is complete. Skip to step 27.

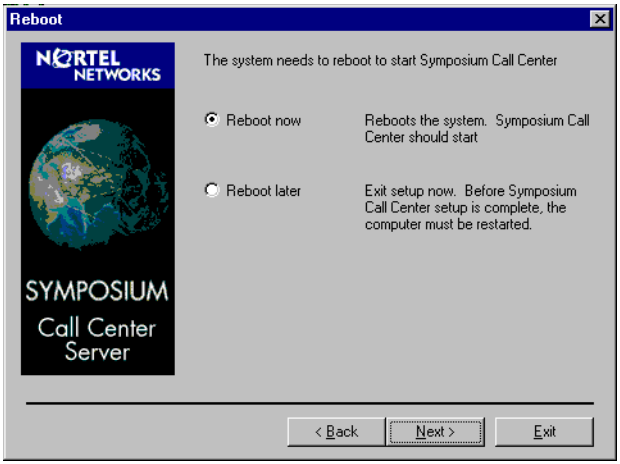
Result: The program prompts `Label a floppy disk “Platform Recovery Disk” and insert it into drive A:.`

25 Insert a blank formatted disk in the floppy drive, and click Yes.

Result: The program prompts `The Platform Recovery disk has been successfully created....`

26 Click OK, remove the disk, and store it in a safe place.

Result: The Reboot dialog box appears.


Reboot
NORTEL NETWORKS
The system needs to reboot to start Symposium Call Center
Reboot now
Reboots the system. Symposium Call Center should start
Reboot later
Exit setup now. Before Symposium Call Center setup is complete, the computer must be restarted.
SYMPOSIUM
Call Center Server
< Back
Next >
Exit

27 Select Reboot now, and then click Next.

28 Log on to the server from the client PC, and check the status of all scripts.

Checking for PEPs and Service Update packs

Extract and install the latest available software PEPs and Service Update packs now. For more information, see “Overview” on page 116.

Backing up the server

Create a database backup (refer to Chapter 11, “Backing up data”).

Installing and configuring pcAnywhere version 9.2

If the version of pcAnywhere installed on the server is not 9.2, you must first uninstall the earlier version, and then install and configure pcAnywhere version 9.2. To install pcAnywhere version 9.2, follow the instructions in Chapter 3, “Installing and configuring pcAnywhere.” To uninstall an earlier version of pcAnywhere, see “To uninstall pcAnywhere” on page 218.

To create an emergency repair disk

1. Log on to Windows NT as Administrator, using password abc123.
2. From the Windows Start menu, choose Run.
3. Type **rdisk /s** and click OK.
4. When prompted, insert a blank floppy disk into drive A to create the emergency repair disk, and follow screen instructions. For more information on updating the emergency repair disk, see “Updating the emergency repair disk” on page 65.

To enable RSM (optional)

If you installed RSM on your server, you must enable the RSM service to provide moving window and interval-to-date statistics for multicast real-time displays. For instructions on enabling RSM, see “Modifying Real-time Statistics Multicast settings” on page 471.

Ensuring that Symposium Call Center Server services are started

If you can see the SMonW window, check that all of the services are started. If this window is not open, or if some services are not started, then run the Startup utility (from the Windows Start menu, choose Programs → Symposium Call Center Server → Startup).

Performing the client PC conversion

Go to “Converting the client from a previous release to Release 4.0” on page 259 and begin the client PC conversion.

To force synchronization of the Address Table (Networking option)

1. After performing all server conversions in the network, at the NCC, from the Windows Start menu, choose Run.
2. Type **nbconfig -admin** and click OK.

   Result: The Nbconfig window appears.
3. Click the Site tab.
4. Check Force Synchronization.

5 Click OK.

Rebuilding the RAID drives

If you have split the RAID drives, rebuild the RAID drives when you are confident of the conversion and server operation. For more information, see Chapter 12, “Restoring data.”

If you must restore the server to the previous version

You can restore your server following the instructions in Chapter 12, “Restoring data.”

Reinstalling server software

When to use

Use this procedure

- to add additional features with a new keycode for the same server version
- to reinstall the same server software version (for example, when the Symposium Call Center Server application is damaged)

A reinstallation can be done only on a server that has already been installed properly. For example, if you have a working server that suddenly has problems in the application software, you can try to reinstall the application software.

Note: You cannot downgrade features (that is, remove features or reduce the number of purchased agents) with this procedure.

If you encounter a problem during a new installation, you must uninstall and then do the installation again.

The reinstallation does not repair data files or the database. If the hard drive or database has become corrupted or has failed, see Chapter 12, “Restoring data.”

Before you begin

Before reinstalling software, create a database backup of the server. See Chapter 11, “Backing up data.”

To create a Platform Recovery disk

1. Insert a disk into the floppy drive.
2. From the Windows Start menu, choose Programs → Symposium Call Center Server → Migration.
3. Select Dump system information to floppy disk, and click Continue.

   Result: The program prompts you to insert a disk.

4 Click OK.

Result: The program saves the configuration to the disk and displays messages telling you that the save is complete.

5 Click OK in response to these messages.

Result: The program prompts you to remove the disk.

6 Click OK.

7 Label the disk with “Platform Recovery Disk” and the current date, and store it in a safe place.

To reinstall the server software

Before any conversion, you should restart your server. (If you uninstalled PEPs or pcAnywhere in the previous procedures and restarted your system, then you do not need to restart the server now.)

ATTENTION

During the reinstallation, there are points where the setup program performs automatic installation steps in between wizard setup windows. Do not close any windows that appear during these steps. Wait for the next wizard setup window before you use the mouse or keyboard.

1 Insert the upgrade CD or, if you are installing from a remote CD-ROM or a network share, map the upgrade CD to a drive letter on the server.

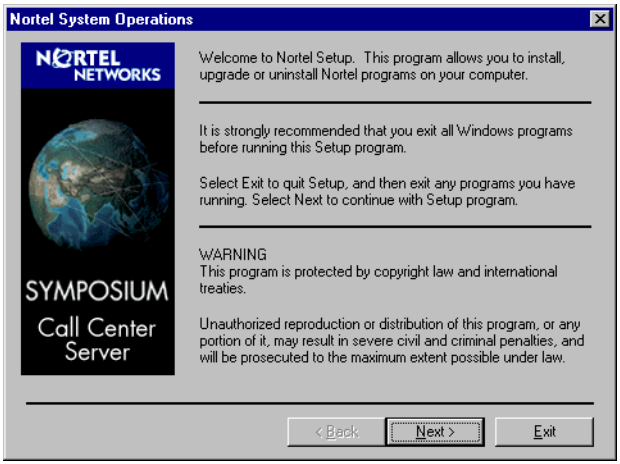
2 Exit all applications, including screen savers, and close all windows.

3 From the Windows Start menu, choose Run.

4 Click Browse, and then select Setup.exe from the root directory on the CD.

5 Click OK to run.

Result: The Nortel System Operations welcome dialog box appears.


Nortel System Operations
NORTEL NETWORKS
SYMPOSIUM
Call Center Server
Welcome to Nortel Setup. This program allows you to install, upgrade or uninstall Nortel programs on your computer.
It is strongly recommended that you exit all Windows programs before running this Setup program.
Select Exit to quit Setup, and then exit any programs you have running. Select Next to continue with Setup program.
WARNING
This program is protected by copyright law and international treaties.
Unauthorized reproduction or distribution of this program, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under law.
< Back
Next >
Exit

6 Click Next.

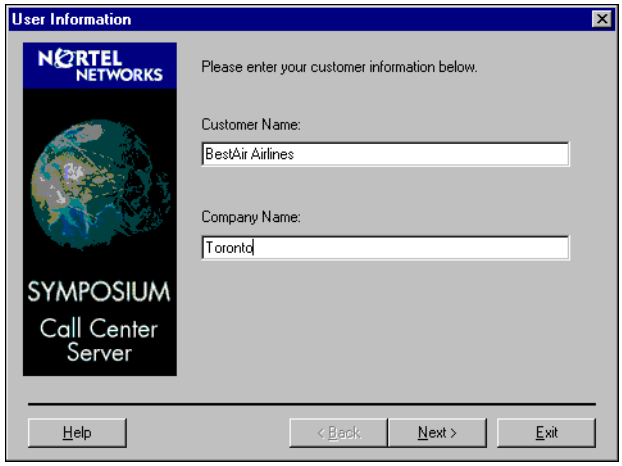
Result: The Setup Choices dialog box appears.

7 Click Reinstall.

Note: If the following message appears, then click Yes to continue:

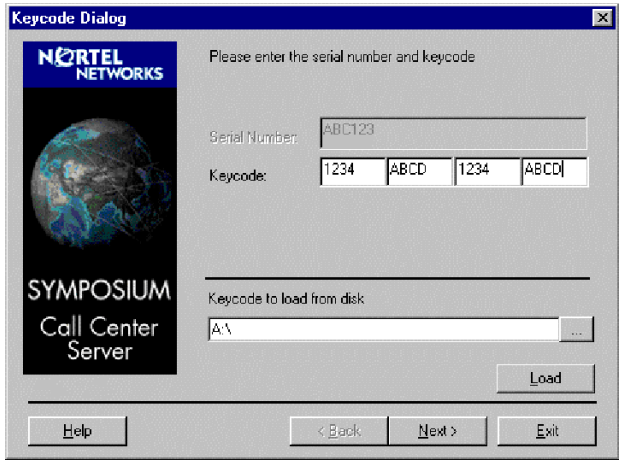
```
Setup has found out that this drive "C:\" has less than
64 Mbytes of free space. Do you still want to continue?"
```

Result: Setup shuts down all Symposium Call Center Server services and copies files to the server. Then the User Information dialog box appears.



8 Make sure that the customer and company names are correct, and then click Next.

Result: The Keycode Dialog box appears.



9 Make sure that the keycode is correct. To enter a new keycode, use one of the following methods:

- If you have a disk that contains your keycode information, follow these steps:

  a. Insert the keycode disk into the floppy drive.

  b. Click the (...) button to open a browse dialog box.

  c. Locate and select the file that contains the keycode information, and click Load.

  Result: The keycode and serial numbers are entered into the Keycode Dialog box.

- If your keycode information is stored on a hard disk, follow these steps:

  a. Click the (...) button to open a browse dialog box.

  b. Locate and select the file that contains the keycode information and click Load.

  Result: The keycode and serial number are entered into the Keycode Dialog box.

- Type your keycode in the appropriate boxes.

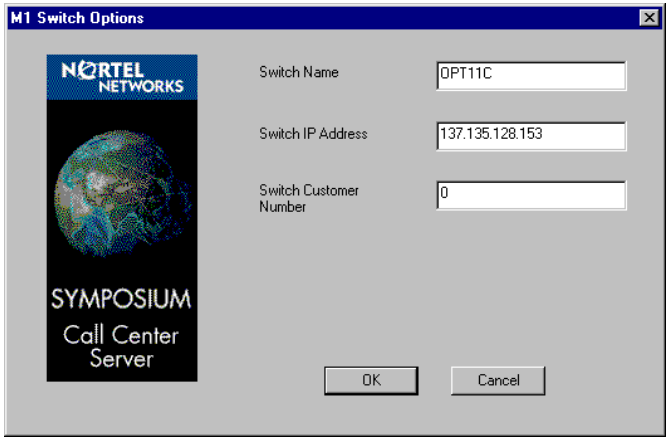
10 Click Next.

Result: The Verify Keycode Information window appears.

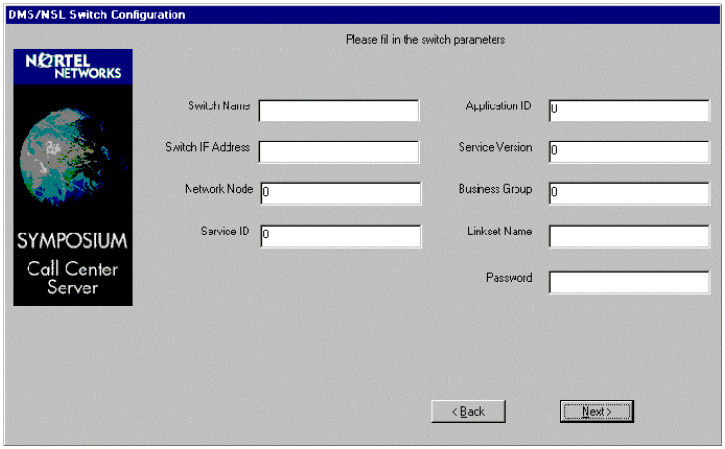
11 Click Next.

Result: Based on the system type that you are installing, one of the following dialog boxes appears:

M1 Switch Options dialog box



DMS/MSL Switch Configuration dialog box



12 Make sure that the switch information is correct. Refer to the information you entered in Appendix A, “Worksheets,” and to the following restrictions that apply to switch names:

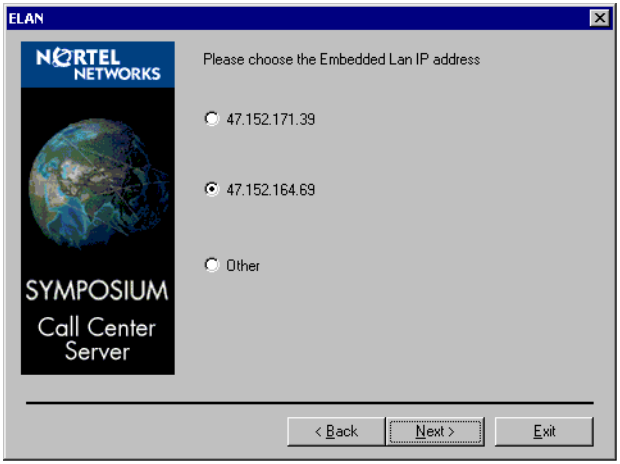
- Valid characters for switch names are A–Z, a–z, 0–9, _ (underscore) and . (period).
- Switch names must begin with an alphabetic character, and they cannot contain spaces.

- The last character must not be an underscore or a period.
- Switch names must not exceed 80 characters in length.

Tip: If you are unsure of the correct information or if you make a mistake, you can change the switch information after you finish the installation (see “Feature Report” on page 453).

13 Click Next.

Result: The ELAN dialog box appears.



14 Enter the ELAN TCP/IP address for the server in one of the following ways:

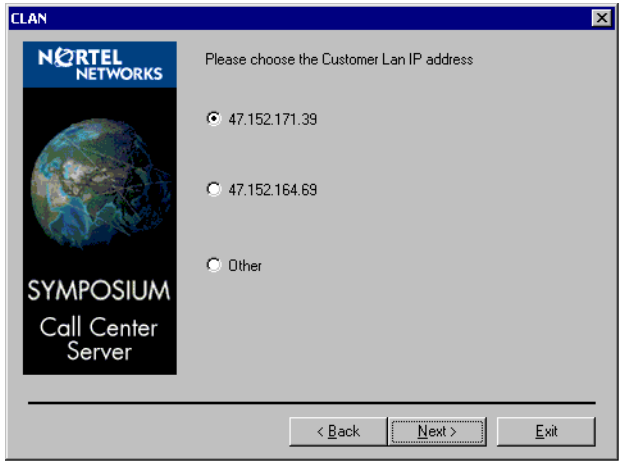
- If the address appears in the dialog box, select it and click Next.
- If the ELAN TCP/IP address does not appear in the dialog box, select Other, enter the correct IP address in the dialog box that appears, and then click Next.

- If you are configuring a Network Control Center server, you do not need to connect the ELAN network interface card to the ELAN cable. However, to ensure proper functionality, enter an IP address for the ELAN network interface card that is not used elsewhere in the network.

ATTENTION

If your NCC server has only one network interface card, enter the CLAN address for both the ELAN prompt and the CLAN prompt.

Result: The CLAN dialog box appears.



15 Enter the CLAN TCP/IP address for the server in one of the following ways:

- If the address appears in the dialog box, select it and click Next.

- If the CLAN TCP/IP address does not appear in the dialog box, select Other, enter the correct IP address in the dialog box that appears, and then click Next.

Result: If the optional RSM feature is enabled for your server, the RSM IP Address dialog box appears. Continue with the following step. If this feature is not enabled, the Verify Setup Information dialog box appears. Skip to step 20.

16 Enter the IP address of the RSM server (the server to which the Symposium Call Center Servers in your network send real-time statistics), and click Next.

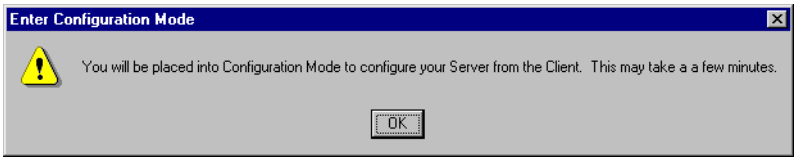
Result: The Verify Setup Information dialog box appears.

17 Examine the list of current settings. If they are incorrect, click Back, make the necessary corrections, and click Next.

18 Click Next.

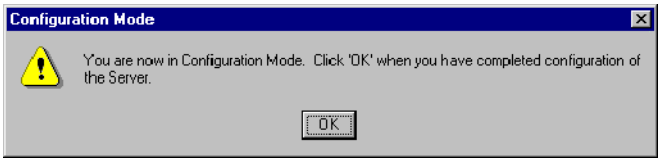
Result: The program begins to copy files to the hard drive and a progress bar appears. The program automatically fills dialog boxes. The keyboard and mouse are disabled during this portion of the setup.

When this step is completed, the Enter Configuration Mode message appears.


Enter Configuration Mode
You will be placed into Configuration Mode to configure your Server from the Client. This may take a a few minutes.
OK

19 Click OK.

Result: The setup program validates scripts and puts the server into configuration mode.



20 If any configuration must be done offline from the switch, do it now. Otherwise, click OK to finish the conversion.

Result: The program prompts `In order to recover the Symposium Call Center Server from catastrophic failure or to migrate to a difference platform using the database tape, the Platform Recovery disk must be available....`

21 Click Yes.

Note: If you click No, the program prompts `You have selected not to create the Platform Recovery disk at this time....` Remember to use the Migration utility to create a Platform Recovery disk when the installation is complete. Skip to step 27.

Result: The program prompts `Label a floppy disk “Platform Recovery Disk” and insert it into drive A:.`

22 Insert a blank formatted disk in the floppy drive, and click Yes.

Result: The program prompts `The Platform Recovery disk has been successfully created....`

23 Click OK, remove the disk, and store it in a safe place.

Result: The Reboot dialog box appears.

24 Select Reboot now, and then click Next.

25 Log on to the server from the client PC, and check the status of all scripts.

To enable RSM (optional)

If you installed RSM on your server, you must enable the RSM service to provide moving window and interval-to-date statistics for multicast real-time displays. For instructions on enabling RSM, see “Modifying Real-time Statistics Multicast settings” on page 471.

Reapplying PEPs

Reapply any software PEPs now. For more information, see “Overview” on page 116.

Backing up the server

Create a database backup of the server (see Chapter 11, “Backing up data”).

Uninstalling server software

Introduction

Uninstall the server software when you want to use the server PC for another purpose. If you must do a fresh install of the current server software, then uninstall the server software first.

ATTENTION

Do not uninstall the server software before a software upgrade.

Checklist for uninstalling server software

Steps	✔
Obtain the current password for the NGenSys account.	
Establish a connection to the server by attaching a keyboard and monitor, or by using pcAnywhere (see page 13.)	
Uninstall the server software (see page 242).	
Uninstall the Desktop Management Interface (DMI) (see page 244).	

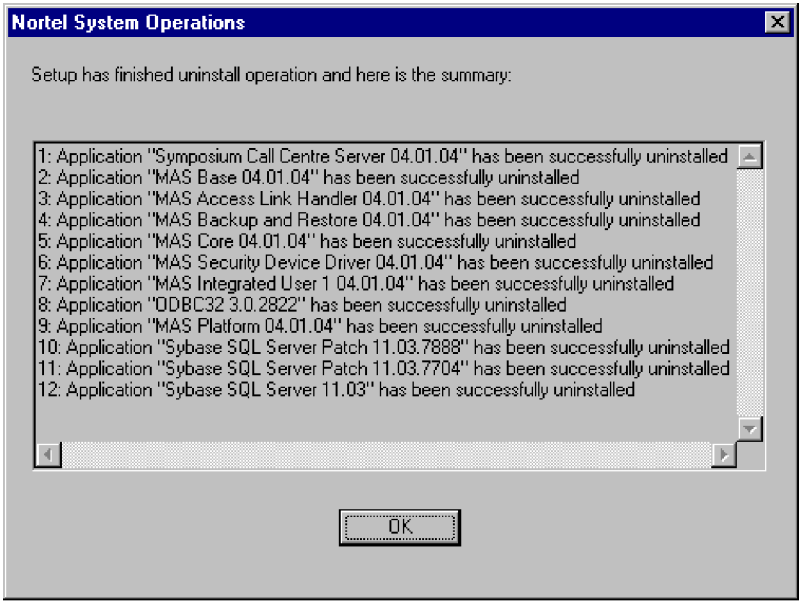
To uninstall the server software

1. Log on to Windows NT as NGenSys.
2. From the Windows Start menu, choose Programs → Symposium Call Center Server → uninstall.

   Result: The program prompts `Setup is about to uninstall the Symposium Call Center Server software....`

3 Click Yes.

Result: The program shuts down all Symposium Call Center Server services and uninstalls all components. Then the Nortel System Operations dialog box opens, displaying a summary of the uninstall.


Nortel System Operations
Setup has finished uninstall operation and here is the summary:
1: Application "Symposium Call Centre Server 04.01.04" has been successfully uninstalled
2: Application "MAS Base 04.01.04" has been successfully uninstalled
3: Application "MAS Access Link Handler 04.01.04" has been successfully uninstalled
4: Application "MAS Backup and Restore 04.01.04" has been successfully uninstalled
5: Application "MAS Core 04.01.04" has been successfully uninstalled
6: Application "MAS Security Device Driver 04.01.04" has been successfully uninstalled
7: Application "MAS Integrated User 1 04.01.04" has been successfully uninstalled
8: Application "ODBC32 3.0.2822" has been successfully uninstalled
9: Application "MAS Platform 04.01.04" has been successfully uninstalled
10: Application "Sybase SQL Server Patch 11.03.7888" has been successfully uninstalled
11: Application "Sybase SQL Server Patch 11.03.7704" has been successfully uninstalled
12: Application "Sybase SQL Server 11.03" has been successfully uninstalled
OK

4 Click OK.

Result: The system prompts you to restart.

5 Click Yes.

Result: The system restarts. Continue with the following procedure.

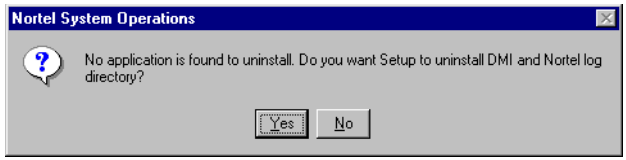
Note: If you encounter a problem during the uninstall, do not uninstall the DMI. The DMI is not automatically uninstalled during the uninstallation process because all logs, which can be used by Customer Technical Support to troubleshoot problems, are deleted when the DMI is uninstalled.

To uninstall the DMI

1 Log on to Windows NT as NGenSys (the NGenSys password reverts to _ _ngen!).

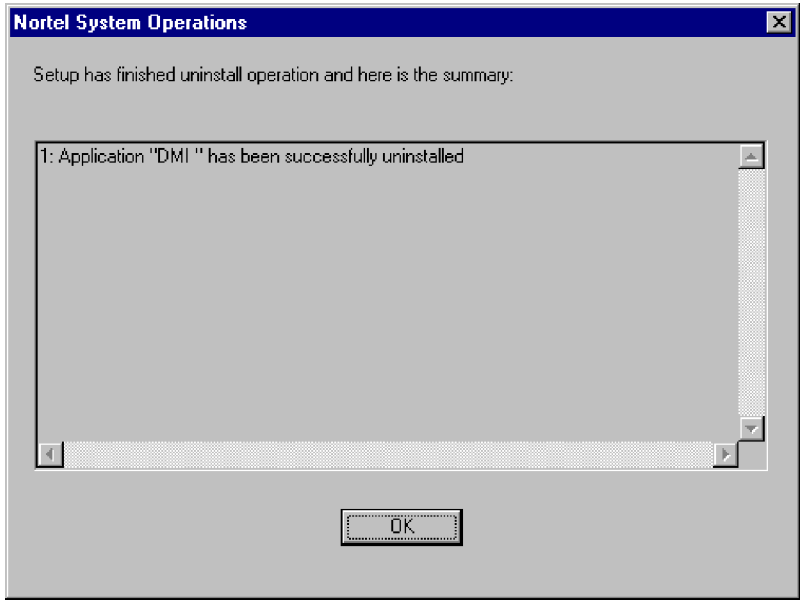
2 From the Windows Start menu, choose Programs → Symposium Call Center Server → uninstall.

Result: The following prompt appears:


Nortel System Operations
No application is found to uninstall. Do you want Setup to uninstall DMI and Nortel log directory?
Yes
No

3 Click Yes.

Result: A Nortel System Operations window opens, showing a summary of the uninstall.


Nortel System Operations
Setup has finished uninstall operation and here is the summary:
1: Application "DMI " has been successfully uninstalled
OK

4 Click OK.

Result: The program prompts `Setup is about to reboot the system after uninstall`.

5 Click OK to restart.

Result: The server software is now completely uninstalled.

ATTENTION

Make sure that all the Nortel folders and subfolders in each of the local drives have been deleted. Remove them manually if they still exist.

Chapter 7

Converting, upgrading, reinstalling, and uninstalling client software

In this chapter

Reinstalling NCC reports 248

Removing NCC reports 254

Converting the client from a previous release to Release 4.0 259

Uninstalling the Release 4.0 client software 271

Reinstalling NCC reports

Introduction

If you have previously installed the Symposium Call Center Server Client Release 4.0 for a Meridian 1 switch and want to install or reinstall NCC reports, follow this procedure.

1 Log on to the client PC.

Note: If the client PC is running Windows NT Workstation or Windows 2000 Professional, log on as Administrator. You must be logged on with administrative privileges to install or uninstall Symposium Call Center Server software.

2 Insert the client installation CD or, if you are installing from a remote CD-ROM, map the client installation CD to a drive letter on the client PC.

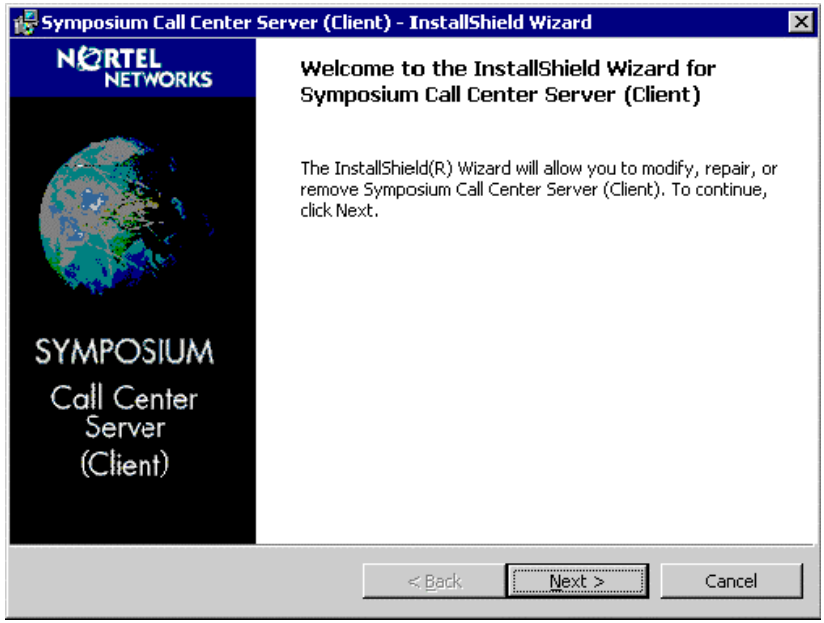
3 Use either of the following methods to start the installation process:

a. Click Start → Run → Browse, and then select Setup.exe from the root directory on the CD. Click OK to run.

or

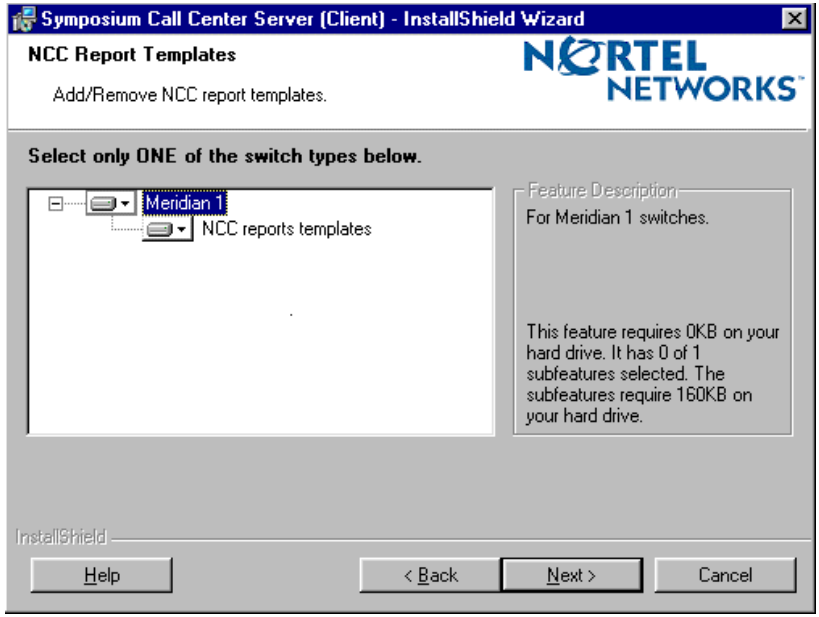
b. Click Start → Settings → Control Panel → Add/Remove Programs, then select Symposium Call Center Server (Client). For Windows NT/9X, click Add/Remove. For Windows 2000, click Change.

Result: The Symposium Call Center Server (Client) InstallShield Wizard window appears with a welcome message.


Symposium Call Center Server (Client) - InstallShield Wizard
NORTEL NETWORKS
SYMPOSIUM
Call Center Server (Client)
Welcome to the InstallShield Wizard for Symposium Call Center Server (Client)
The InstallShield(R) Wizard will allow you to modify, repair, or remove Symposium Call Center Server (Client). To continue, click Next.
< Back
Next >
Cancel

4 Click Next.

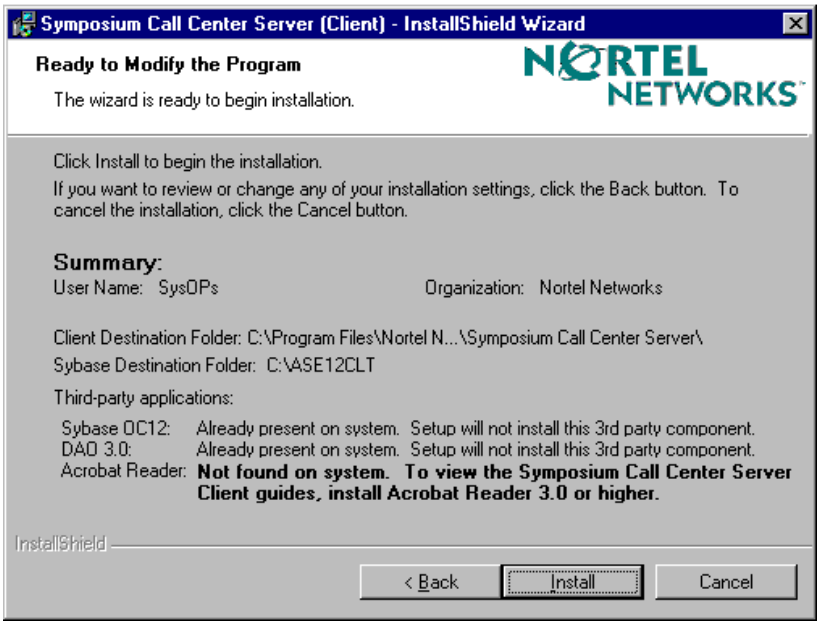
Result: The Network Control Center Report Templates dialog box appears. This dialog box gives you the option to add NCC reporting capabilities.


Symposium Call Center Server (Client) - InstallShield Wizard
NCC Report Templates
Add/Remove NCC report templates.
NORTEL NETWORKS
Select only ONE of the switch types below.
Meridian 1
NCC reports templates
Feature Description
For Meridian 1 switches.
This feature requires 0KB on your hard drive. It has 0 of 1 subfeatures selected. The subfeatures require 160KB on your hard drive.
InstallShield
Help
< Back
Next >
Cancel

5 Click the down arrow beside NCC reports templates and choose Install this feature now to install NCC reports.

6 Click Next.

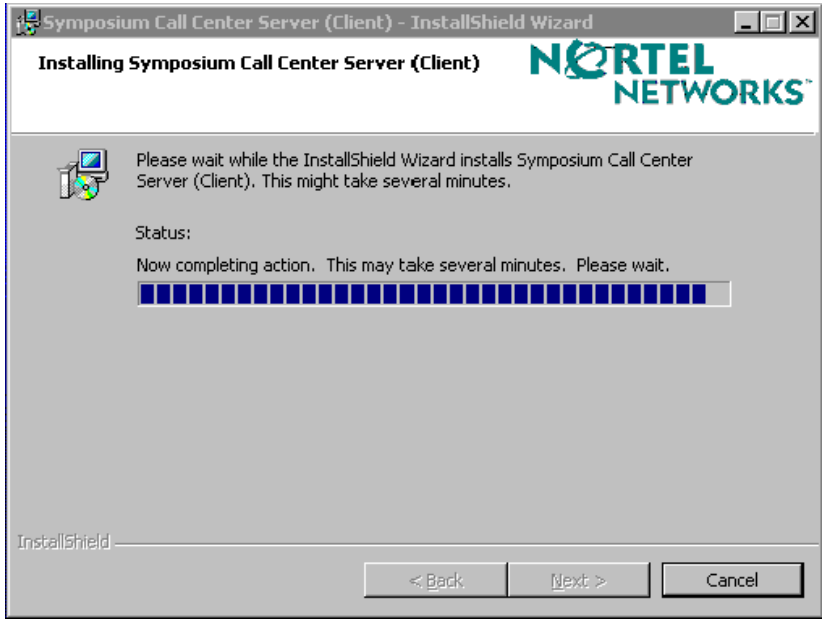
Result: The Verification dialog box appears.


Symposium Call Center Server (Client) - InstallShield Wizard
Ready to Modify the Program
The wizard is ready to begin installation.
NORTEL NETWORKS
Click Install to begin the installation.
If you want to review or change any of your installation settings, click the Back button. To cancel the installation, click the Cancel button.
Summary:
User Name: SysOPs
Organization: Nortel Networks
Client Destination Folder: C:\Program Files\Nortel N...\Symposium Call Center Server\
Sybase Destination Folder: C:\ASE12CLT
Third-party applications:
Sybase OC12: Already present on system. Setup will not install this 3rd party component.
DAO 3.0: Already present on system. Setup will not install this 3rd party component.
Acrobat Reader: Not found on system. To view the Symposium Call Center Server Client guides, install Acrobat Reader 3.0 or higher.
InstallShield
< Back
Install
Cancel

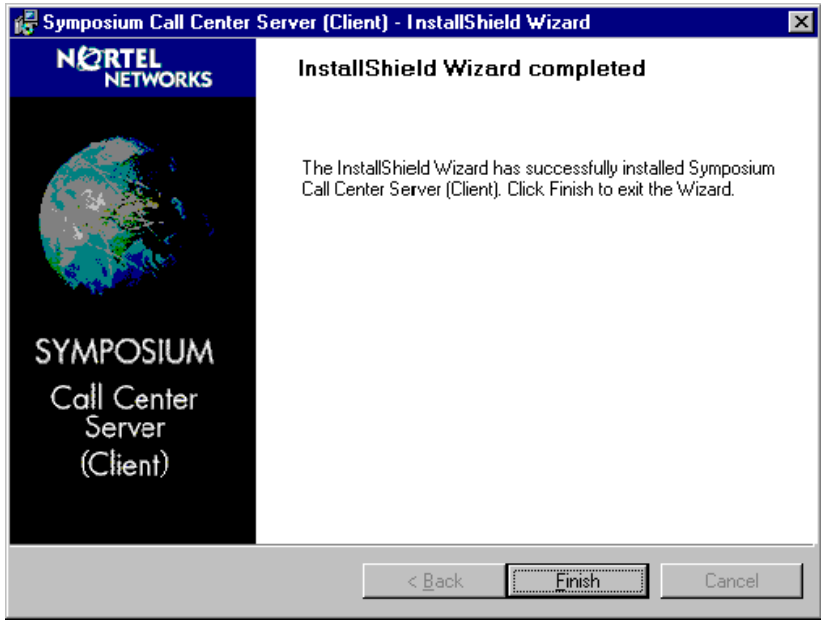
7 Verify that all of the options in the Verification dialog box are correct. If errors appear, click Back, make the necessary corrections, and then click Next.

8 Click Install.

Result: The Installing Symposium Call Center Server (Client) window appears. The system installs the NCC report templates.


Symposium Call Center Server (Client) - InstallShield Wizard
Installing Symposium Call Center Server (Client)
NORTEL NETWORKS
Please wait while the InstallShield Wizard installs Symposium Call Center Server (Client). This might take several minutes.
Status:
Now completing action. This may take several minutes. Please wait.
InstallShield
< Back
Next >
Cancel

When the NCC reports installation is complete, the InstallShield Wizard completed message appears.


Symposium Call Center Server (Client) - InstallShield Wizard
NORTEL NETWORKS
InstallShield Wizard completed
The InstallShield Wizard has successfully installed Symposium Call Center Server (Client). Click Finish to exit the Wizard.
SYMPOSIUM
Call Center Server (Client)
< Back
Finish
Cancel

9 Click Finish.

Result: The program prompts you to restart.

10 Click Yes to restart the computer.

Result: You have successfully installed NCC Reports.

Removing NCC reports

Introduction

If you chose to install Networking NCC reports for a Meridian 1 switch, you can remove the NCC report templates at any time. To remove NCC report templates, follow these steps.

1 Log on to the client PC.

Note: If the client PC is running Windows NT Workstation or Windows 2000 Professional, log on as Administrator. You must be logged on with administrative privileges to install or uninstall Symposium Call Center Server software.

2 Insert the client installation CD or, if you are removing NCC reports from a remote CD-ROM, map the client installation CD to a drive letter on the client PC.

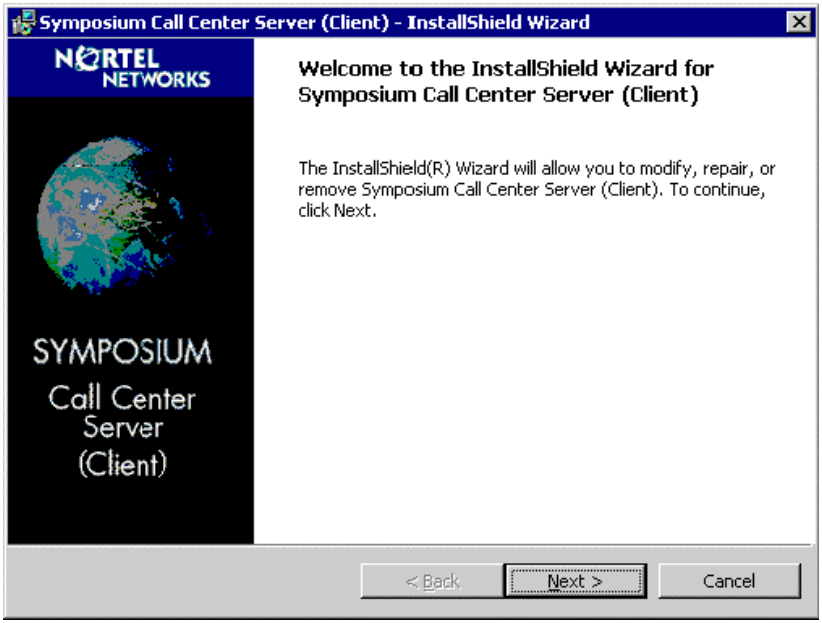
3 Use either of the following methods to start the uninstallation process:

a. Click Start → Run → Browse, and then select Setup.exe from the root directory on the CD. Click OK to run.

or

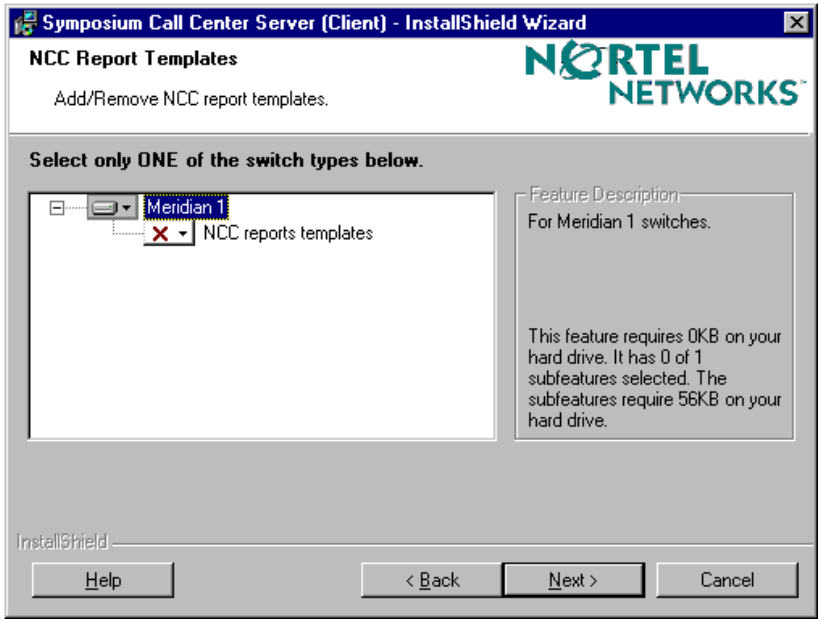
b. Click Start → Settings → Control Panel → Add/Remove Programs, then select Symposium Call Center Server (Client). For Windows NT/9X, click Add/Remove. For Windows 2000, click Change.

Result: The Symposium Call Center Server (Client) InstallShield Wizard window appears with a welcome message.


Symposium Call Center Server (Client) - InstallShield Wizard
NORTEL NETWORKS
SYMPOSIUM
Call Center Server (Client)
Welcome to the InstallShield Wizard for Symposium Call Center Server (Client)
The InstallShield(R) Wizard will allow you to modify, repair, or remove Symposium Call Center Server (Client). To continue, click Next.
< Back
Next >
Cancel

4 Click Next.

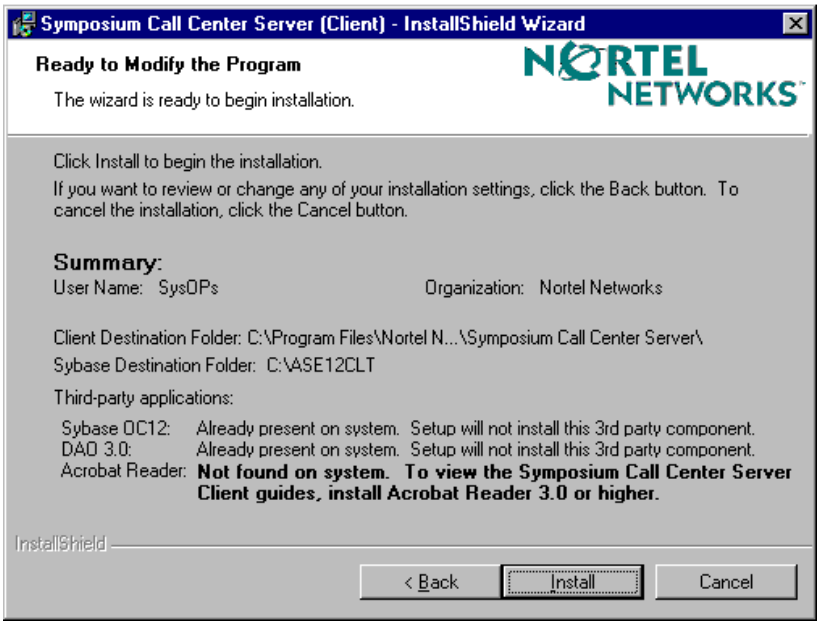
Result: The Network Control Center Report Templates dialog box appears. This dialog box gives you the option to remove NCC reporting capabilities.


Symposium Call Center Server (Client) - InstallShield Wizard
NCC Report Templates
Add/Remove NCC report templates.
NORTEL NETWORKS
Select only ONE of the switch types below.
Meridian 1
NCC reports templates
Feature Description
For Meridian 1 switches.
This feature requires 0KB on your hard drive. It has 0 of 1 subfeatures selected. The subfeatures require 56KB on your hard drive.
InstallShield
Help
< Back
Next >
Cancel

5 Click the down arrow beside NCC reports templates and choose Do not install/remove this feature to remove NCC reports.

6 Click Next.

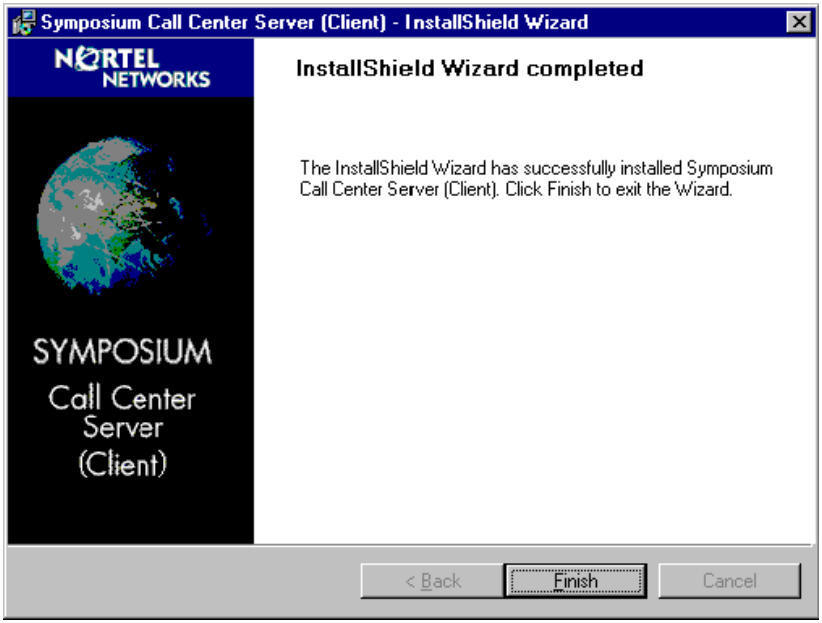
Result: The Verification dialog box appears.


Symposium Call Center Server (Client) - InstallShield Wizard
Ready to Modify the Program
The wizard is ready to begin installation.
NORTEL NETWORKS
Click Install to begin the installation.
If you want to review or change any of your installation settings, click the Back button. To cancel the installation, click the Cancel button.
Summary:
User Name: SysOPs
Organization: Nortel Networks
Client Destination Folder: C:\Program Files\Nortel N...\Symposium Call Center Server\
Sybase Destination Folder: C:\ASE12CLT
Third-party applications:
Sybase OC12: Already present on system. Setup will not install this 3rd party component.
DAO 3.0: Already present on system. Setup will not install this 3rd party component.
Acrobat Reader: Not found on system. To view the Symposium Call Center Server Client guides, install Acrobat Reader 3.0 or higher.
InstallShield
< Back
Install
Cancel

7 Verify that all of the options in the Verification dialog box are correct. If errors appear, click Back, make the necessary corrections, and then click Next.

8 Click Install.

Result: The system uninstalls NCC reports. When complete, the InstallShield Wizard completed message appears.


Symposium Call Center Server (Client) - InstallShield Wizard
NORTEL NETWORKS
InstallShield Wizard completed
The InstallShield Wizard has successfully installed Symposium Call Center Server (Client). Click Finish to exit the Wizard.
SYMPOSIUM
Call Center Server (Client)
< Back
Finish
Cancel

9 Click Finish.

Result: The program prompts you to restart.

10 Click Yes to restart the computer.

Result: You have successfully removed the NCC Reports.

Note: NCC report templates are also uninstalled during the regular uninstallation process, as described in “Uninstalling the Release 4.0 client software” on page 271.

Converting the client from a previous release to Release 4.0

Introduction

To convert Symposium Call Center Server Client software from an earlier release to a new version of Release 4.0, you must perform the following procedures in sequence:

- Export the data from the present version to a safe location.
- Uninstall the old client software.
- Install the new version of Symposium Call Center Server Client Release 4.0.
- Import the data that you previously exported.

Notes:

- You cannot upgrade from Symposium Call Center Server Release 1.0 or 1.1 to Symposium Call Center Server Release 4.0. To upgrade from one of these releases, you must first perform a conversion to Release 1.5 and then upgrade to Release 4.0.
- Conversion to Release 4.0 is supported on Windows 95, Windows 98, Windows NT 4.0 Workstation, and Windows 2000 Professional.

ATTENTION

To ensure Release 4.0 client interoperability with a Release 3.0 server, Service Update pack NS30121SU06S must be installed on the server.

Upgrading from Release 1.0 or Release 1.1

To upgrade from Symposium Call Center Server Release 1.0 or 1.1 to Release 4.0, you must first upgrade to Release 1.5. To upgrade to Release 1.5, refer to *Symposium Call Center Server Upgrade Instructions from Release 1.0 to Release 1.5* that accompanies the CD.

Default access classes

Symposium Call Center Server requires that the three default access classes (adminGroup, Call Center Admin, and Supervisor) be defined. Before beginning the conversion, you must apply PEPs on the client and server to

- prevent these classes from being deleted
- re-add them if they have been deleted
- restore their names, if they have been renamed

Note: If any of these access classes do not exist or if they have different names, the conversion fails.

Conversion checklist

Step		✔
1	For conversions from Release 1.5 only, apply Client PEP NI015003P067C on the client. This PEP is included in Service Update pack SU09C. (For detailed instructions, see “Overview” on page 116.)	
2	For conversions from Release 1.5, apply Client PEP NI015003P085C. For conversions from Release 3.0, apply Client PEP NS030121G096C. **Attention** To ensure Release 4.0 client interoperability with a Release 3.0 server, Service Update pack NS30121SU06S must be installed on the server.	
3	For Windows NT and Windows 2000 systems, you require administrator privilege logons to perform client installs.	
4	Export the data from the present version to a safe location.	
5	Uninstall the old client software.	
6	Install Symposium Call Center Server Client Release 4.0.	
7	Install Service Update NS040107SU01C.	
8	Import the data that you previously exported.	

Step	✔
9 Install PEPs (see page 269).	
10 Add an SMI system (see page 269).	
11 Restore report selection criteria (see page 270).	

To export the data

The following operating systems and their corresponding versions of Symposium Call Center Server Client are supported by the export utility:

Symposium Call Center Server Client version	Supported client PC Windows operating system
1.5	Windows 95/98
3.0	Windows 95/98/NT 4.0 Workstation
4.0	Windows 95/98/NT 4.0 Workstation/ Windows 2000 Professional

Before you uninstall the old client software, use this procedure to export your customized client data to a safe location, such as a secondary partition that is not shared with the operating system, or to a mapped network shared location.

Before you start

Ensure that no SMI Workbench sessions are running on the client PC before you start the exporting process.

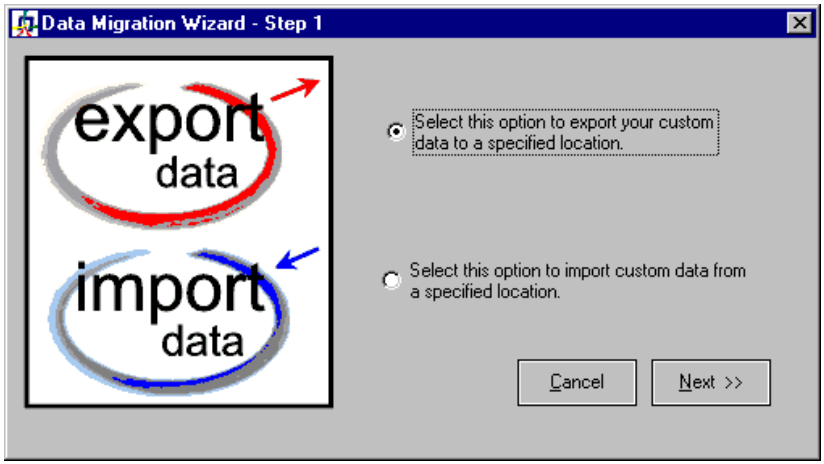
Ensure that all user-created Crystal Reports have a unique name. If they do not have a unique name, they are overwritten during the exporting process and cannot function properly.

1. Decide where you want to store your client data. If you want to create a new folder to store your client data, do so now.
2. Log on to the client PC.

   Note: If the client PC is running Windows NT Workstation or Windows 2000 Professional, log on as Administrator.
3. If performing a conversion from Release 1.5, ensure that PEP NI015003P085C is installed.
4. If performing a conversion from Release 3.0, ensure that PEP NS030121G096C is installed.

5 Navigate to <user-defined path> Nortel\client\en\sysops, and double-click on DataMgr.exe.

Result: The Data Migration Wizard - Step 1 dialog box appears.

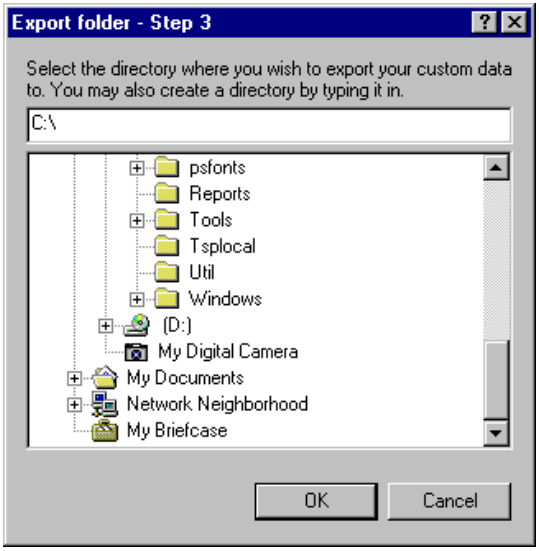

Data Migration Wizard - Step 1
export data
import data
Select this option to export your custom data to a specified location.
Select this option to import custom data from a specified location.
Cancel
Next >>

6 Ensure the export option button is selected, and then click Next.

Result: The Data Migration Wizard - Step 2 window appears with general information concerning the export/import process.

7 Read the text and press Next to continue.

Result: The Export folder - Step 3 window appears.



8 Select the folder where you want to save your exported data, and then click OK.

Result: A dialog box appears stating that the data export may take a few minutes and to wait until you are prompted to restart the PC.

9 Click OK.

Result: The system informs you when the export is complete and asks you to restart the client computer.

10 Click Yes.

To uninstall the old client software

You can either uninstall your current Symposium Call Center Server Client Release 1.5, Release 3.0, or Release 4.0 client software, or you can completely reinstall your entire operating system before installing the newer Release 4.0 client software. The following procedure show you how to uninstall versions of client software previous to Release 4.0.

Note: Before you uninstall the software, deactivate any scheduled reports.

1 Log on to the client PC.

Note: If the client PC is running Windows NT Workstation or Windows 2000 Professional, log on as Administrator. You must be logged on with administrative privileges to install or uninstall Symposium Call Center Server software.

2 Based on your release of Symposium Call Center Server client, do one of the following steps:

- Open the Windows Control Panel (from the Windows Start menu, choose Settings → Control Panel), and double-click Add/Remove Programs. Select Symposium Call Center Server client, and click Remove. Windows will remove the software.

  or

- From the Windows Start menu, choose Programs → Symposium Call Center Server → Uninstall.

Result: For Release 3.0 only, a dialog box appears showing all components to be uninstalled.

3 For Release 3.0 only, choose Select all, and then click Next.

4 Click Yes to uninstall, and then click Yes to confirm.

Notes:

- If the message `Setup is not able to automate Sybase Open Client uninstall` appears, click OK.
- If any window obscures the uninstallation summary, minimize the window.

Result: The Nortel Systems Operations window appears.

5 Click OK.

Result: For Release 3.0 only, the system asks if you want to uninstall DMI and the Nortel Log directory.

6 Click OK.

Result: An uninstall summary dialog box appears.

7 Click OK twice to exit and restart.

Result: The system restarts and the client uninstallation is complete.

Note: If an error message regarding the uninstalling of all Symposium Call Center Server features appears, click OK.

Note: The uninstall procedure does not remove the Desktop shortcut that Symposium Call Center Server created during the installation of Release 1.5. You must remove this shortcut manually.

To install Symposium Call Center Server Client Release 4.0

Follow the procedure in Chapter 5, “Installing the client software.”

Result: Symposium Call Center Server Client Release 4.0 is installed on the client PC.

To import the data

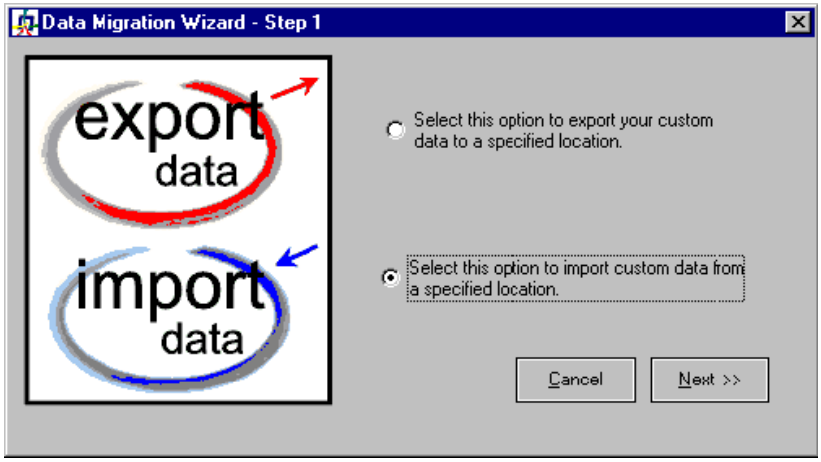
Follow this procedure to import your customized client data to the new release 4.0 client, and copy the user-created custom Crystal Reports back to their original locations.

1 Log on to the client PC.

Note: If the client PC is running Windows NT Workstation or Windows 2000 Professional, log on as Administrator.

2 Click Start → Programs → Symposium Call Center Client→ Data Migration Wizard.

Result: The Data Migration Wizard - Step 1 dialog box appears.

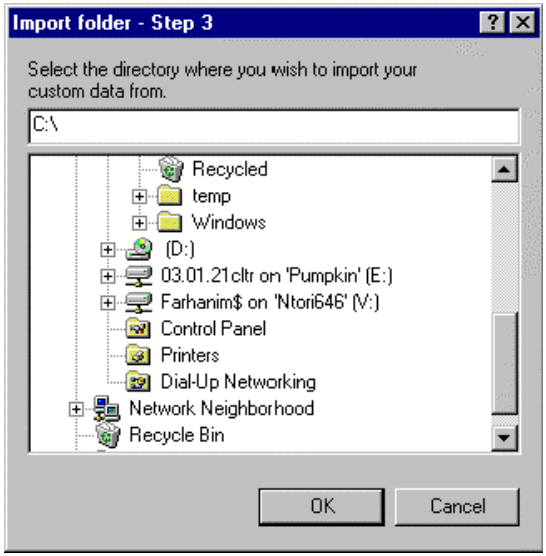

Data Migration Wizard - Step 1
export
data
import
data
Select this option to export your custom data to a specified location.
Select this option to import custom data from a specified location.
Cancel
Next >>

3 Select the import option button, and then click Next.

Result: The Data Migration Wizard - Step 2 window appears with general information concerning the export/import process.

4 Read the text and press Next to continue.

Result: The Import folder - Step 3 window appears.



5 Select the folder from which you want to import your data, and then click OK. This must be the same folder to which you previously exported your data.

Result: The data is imported. After a few seconds, the system informs you that you must restart the computer.

6 Click Yes to restart the client computer.

7 When the operating system has restarted, copy all the user-created custom Crystal Reports files from the location they are imported to (<Install Directory>\Client\En\Rpt\UserCreated\..) to the exact location where they were located on the previous system. (<Install Directory> is the folder where you previously exported your data.) If you are unsure where you previously stored your user-created custom reports, open the UserTemplate table in the following file using Microsoft Access 97 or newer:

<Install Directory>\Client\En\Data\nicrpt.mdb

Note: You must reimport any user-created report templates to include them in future SMI Workbench reports.

Result: The data is imported from the backup location to the Release 4.0 client.

Installing PEPs

If you received a Supplementary CD, install the PEPs now. For instructions, refer to Chapter 4, "Overview."

Also, check for latest or additional PEPs from your regional Symposium Call Center Server technical web site.

Adding an SMI system

If you do not have a Supplementary CD, or after you install the PEPs, you must add an SMI system. See "Adding an SMI system" on page 159.

ATTENTION

When you log on to the server for the first time, you must log on as sysadmin. The application prompts you to change your password. After the sysadmin user changes his or her password, other desktop users can log on. They are also prompted to change their passwords.

To restore report selection criteria

After you complete the conversion from Release 1.5 to 4.0 only, log on to each client PC. Restore the selection criteria for the reports containing agents, using the printed reports as a reference. Follow these steps:

1. Select the report, and choose File → Properties.
2. Click the Selection Criteria tab.
3. Use the hard-copy report as a reference to select each required agent in the Available box, and click the left arrow to move the agent to the Selected list. Repeat this step until all required agents have been selected.
4. Click Save.

Uninstalling the Release 4.0 client software

Introduction

Uninstall the client software when you want to use the client PC for another purpose. If you must reinstall the client software, use this procedure to uninstall the client software first.

Note: Before you uninstall the software, deactivate any scheduled reports.

Uninstallation checklist

Steps	✔
Obtain the user ID and password required to log on to the client. On a Windows NT 4.0 Workstation or Windows 2000 Professional client PC, you need an account that has local administrative privileges.	
Uninstall the client software.	

To uninstall the Release 4.0 client software

1 Log on to the client PC.

Note: If the client PC is running Windows NT Workstation or Windows 2000 Professional, log on as Administrator. You must be logged on with administrative privileges to install or uninstall Symposium Call Center Server software.

2 Do one of the following steps:

a. For Windows 2000 only, click Start → Settings → Control Panel → Add/Remove Programs icon. Select Symposium Call Center Server (Client) and click Remove.

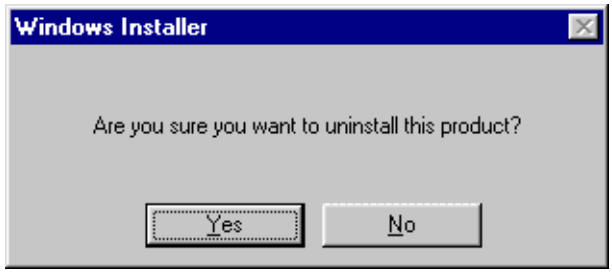
Result: A window appears asking if you are sure you want to remove Symposium Call Center Server (Client) from your computer.

Go to step 3.

or

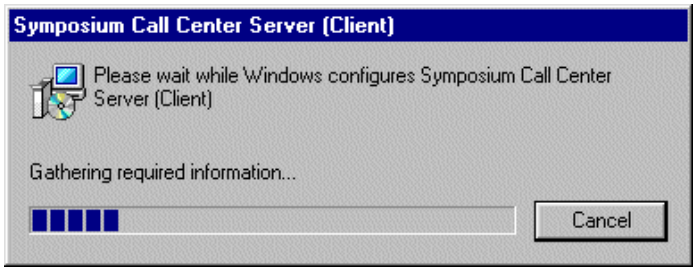
b. For all operating systems, click Start → Programs → Symposium Call Center Client → Uninstall.

Result: The following Windows Installer message asks you to confirm the uninstallation:



3 Click Yes

Result: The system uninstalls Symposium Call Center Server Client Release 4.0.


Symposium Call Center Server (Client)
Please wait while Windows configures Symposium Call Center Server (Client)
Gathering required information...
Cancel

When the software is uninstalled, a message asks you to restart your computer.

4 Click Yes to restart your PC.

Result: Symposium Call Center Server Client Release 4.0 is uninstalled from the computer.

Note: The uninstall procedure does not remove Desktop shortcuts you have created for SMI. You must remove these types of shortcuts manually.

To uninstall Sybase Open Client

There is no uninstall program for Sybase. Use the following procedure to uninstall Sybase from all Windows operating systems.

CAUTION

Risk of corrupting the operating system

The following procedure assumes that you can make changes to the registry with the editing tool Regedit. Incorrect changes to the registry can disable parts of the operating system or other programs.

1 Click Start → Run, type **regedit**, and then click OK.

Result: The Registry Editor window appears.

2 Navigate down to HKEY_LOCAL_MACHINE/System/CurrentControlSet/Control/Session Manager/Environment.

a. Remove values Sybase and Sybase_OCS.

b. Modify the PATH key to remove any Sybase-related paths. Do not remove any winnt paths by mistake.

3 In HKEY_LOCAL_MACHINE/Software, remove the key Sybase.

4 Exit regedit.

5 Delete the Sybase folder. If Sybase was installed with Symposium Call Center Server Client 4.0, the default folder is C:\ASE12CLT.

6 Delete the shortcut from the program group.

Result: You have removed Sybase from the client PC.

Part 2

Maintenance

Chapter 8

Managing the server

In this chapter

Accessing Windows NT Administrative Tools 278

Shutting down or restarting the server 279

Managing the date and time 281

Accessing Windows NT Administrative Tools

To access a Windows NT administrative tool

1. Log on to the server as Administrator.
2. Choose Start → Programs → Administrative Tools (Common), and select the tool you want to run.

List of Administrative Tools

The following tools are among those available from the Windows NT Administrative Tools menu:

- Backup
- Disk Administrator
- Event Viewer
- Performance Monitor
- User Profile Editor
- User Manager
- Server Manager
- Windows NT Diagnostics

For more information, consult your Windows NT documentation.

Shutting down or restarting the server

Introduction

Follow the procedures in this section to shut down the Symposium Call Center Server properly.

CAUTION

Risk of file corruption

Do not press the power button on the front of the server to shut down your system as this can result in

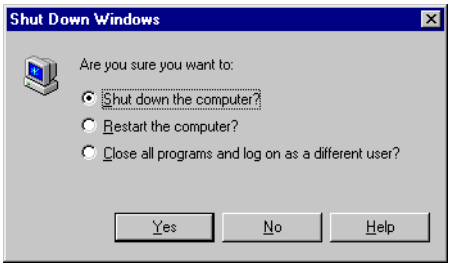
- file corruption
- failure to deacquire resources
- loss of statistics for the current interval

Always use the procedure described in this section to shut down the server.

To shut down or restart the Symposium Call Center Server

1 From the Windows Start menu, choose Shutdown.

Result: The Shut Down Windows dialog box appears.



2 To turn off the server, select Shut down, or to restart the server, select Restart. Then click Yes.

Result: If you are shutting down the server, the Symposium Call Center Server shuts down and powers off. If you are restarting the server, the server shuts down and then begins starting up.

ATTENTION

If you are going to work on the inside of the server, follow safety precautions described in the *Meridian Application Server Installation and Maintenance Guide* for your hardware platform.

Managing the date and time

Meridian 1 switch

The server makes adjustments to stay synchronized with the switch time. If you attempt to change the date and time on the server, the server automatically adjusts the time back to stay synchronized with the switch. As a result, only the switch administrator can change the date and time.

For more information, refer to the *Nortel Networks Symposium Call Center Server Symposium, M1, and Voice Processing Guide.*

Example: Change from daylight saving to standard time

During a time change from standard time to daylight saving time or from daylight saving time to standard time, the following events occur:

- Windows NT on the server automatically adjusts the time.
- Within ten minutes, the server changes the time back to ensure that it is synchronized with the switch time.

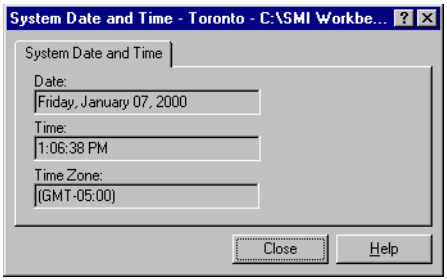
Notes:

- After a change to or from daylight saving time, you must restart the server.
- During the interval between the automatic time changes, the time on real-time displays and in reports is incorrect (for example, the end times of calls in progress might be earlier than their start times).

To view the system date, time, and time zone from the client PC

1 From the SMI window, double-click the time at the bottom right corner of the SMI window.

Result: The System Date and Time property page appears.



2 Click Close to return to the SMI window.

Chapter 9

Managing security

In this chapter

Password guidelines 284

Changing Nortel Networks user account passwords 285

Changing pcAnywhere passwords 290

Protecting pcAnywhere settings 292

Checking server events for suspicious activity 294

Password guidelines

Password format

Write down any new passwords and store them in a secure place for future reference. Passwords are case-sensitive.

New passwords should be

- unique
- alphanumeric (they should contain at least one number)
- a minimum of six characters
- not nouns

Example

xyd45fst

When to change passwords

Passwords should be changed at the following times:

- during the initial system setup after the operating system is installed
- at regular intervals for maximum security
- if you experience trouble logging on to Windows NT
- if server software is reinstalled (the default accounts and passwords are recreated, so passwords must be changed)

Note: If you require support from Nortel Networks or your distributor, you must tell them the new passwords.

Changing Nortel Networks user account passwords

Introduction

To maintain system security, change passwords regularly and store them in a secure location.

Default accounts and passwords

The following Windows NT accounts are created on the server during the installation procedures at the factory:

- Administrator
- NGenSys
- NGenDist
- NGenDesign

ATTENTION

The on-site installer is instructed to change all default passwords as part of the on-site installation procedures.

You can change all passwords with the procedures in this section. Nortel Networks recommends that you change all passwords regularly to maintain system security.

If server software is reinstalled, the default accounts and passwords are recreated and passwords must be changed.

To change the Administrator password

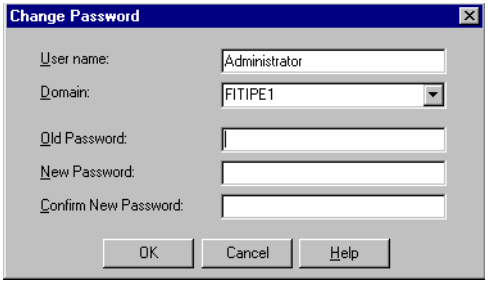
1 Log on as Administrator.

2 Press Ctrl+Alt+Delete.

Result: The Windows NT Security dialog box appears.

3 Click Change Password.

Result: The Change Password dialog box appears.



4 In the Old Password box, enter the current password.

5 In the New Password box, enter the new password.

Note: Ensure the password meets the requirements described earlier in “Password format” on page 284.

6 In the Confirm Password box, enter the new password again.

7 Click OK.

Result: A dialog box appears indicating that the password has been successfully changed.

8 Click OK.

Result: You return to the Windows NT Security dialog box.

9 Click Cancel to close the Windows NT Security dialog box.

10 Record the password and store it in a safe, secure place away from the server.

To change the NGenDist and NGenDesign passwords

Note: You are not required to change the NGenSys password. If you change the NGenSys password, you must apply the same password change to the Meridian Application Server (MAS) Backup/Restore service.

1. Log on as Administrator.
2. Click Start → Programs → Administrative Tools (Common) → User Manager for Domains.

   Result: The User Manager window displays a list of available user accounts, including NGenDist and NGenDesign.
3. Double-click the NGenDist icon.

   Result: The User Properties window appears.
4. In the Password box, type the new password.

   Note: Ensure that you use a password that contains a combination of numbers and letters (see “Password format” on page 284).
5. In the Confirm Password box, type the same password entered in the Password box.
6. Click OK to close the User Properties window.
7. Repeat steps 3 to 6 for NGenDesign.
8. Select Exit to save changes.
9. Record these passwords and store them in a secure place away from the server.

   Note: If you have changed the NGenSys password, continue with the following procedure.

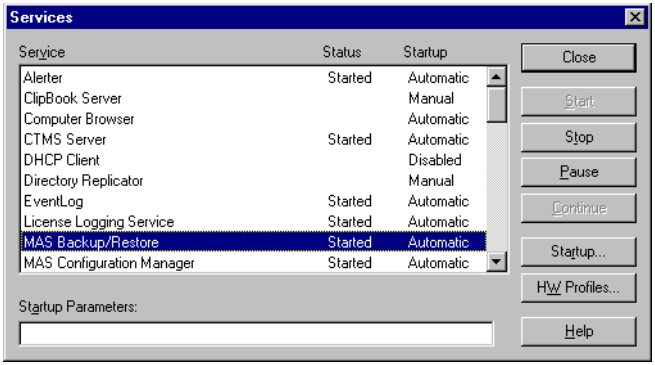
To change the NGenSys password for MAS Backup/Restore service

Note: This procedure is required only if you change the Windows NT user account password for NGenSys.

1 Click Start → Settings → Control Panel.

2 Double-click Services.

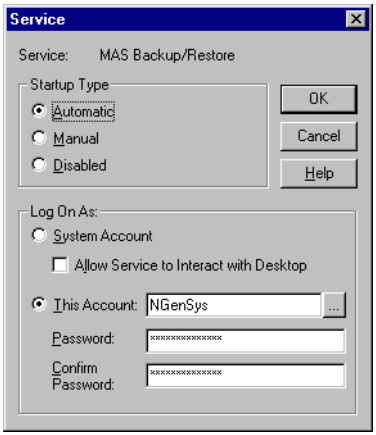
Result: The Services dialog box appears.



3 Scroll to MAS Backup/Restore service and select it.

4 Click Startup.

Result: The Service dialog box appears.



5 In the Log On As section, fill in the Password and Confirm Password boxes with the current NGenSys password.

Note: Use the same password you assigned to NGenSys in “To change the NGenDist and NGenDesign passwords” on page 287.

Changing pcAnywhere passwords

Introduction

During the installation and configuration of pcAnywhere, you specify logon passwords. To maintain security, you can change these passwords periodically.

Note: To simplify the remote logon process, Nortel Networks recommends that you match the pcAnywhere caller passwords for NGenDist and NGenDesign to the Nortel Networks user account passwords for NGenDist and NGenDesign. Change the pcAnywhere passwords when you change the Nortel Networks user account passwords for NGenDist and NGenDesign.

To change passwords

1. Log on to Windows NT as Administrator.
2. From the Windows Start menu choose Programs → Symantec pcAnywhere.

   Result: pcAnywhere starts.
3. Select Be a Host PC.
4. Click Network.

   Note: Do not double-click the icon or you begin a pcAnywhere session.
5. From the File menu, choose Properties.

   Result: The Network Properties sheet appears.
6. Click the Callers tab.
7. Select Use pcAnywhere authentication with pcAnywhere privileges.
8. Right-click the NGenDist icon, and then choose Properties.
9. Select the Identification tab.
10. In the Password box, enter a new NGenDist password.
11. In the Confirm Password box, enter the NGenDist password again.
12. Click Apply to save the changes.
13. Click OK to return to the main pcAnywhere window.

14 Click the NGenDesign icon.

15 Repeat steps 8 to 12 to create a new password for NGenDesign.

16 Click OK to return to the main pcAnywhere window.

17 Exit pcAnywhere.

Protecting pcAnywhere settings

Introduction

The previous section described how to change the passwords used for remote logon using pcAnywhere. However, anyone who has access to the server can still modify the pcAnywhere settings. This section will show you how to create a password to protect the pcAnywhere settings on the server.

ATTENTION

If you select the option Required to modify properties, you must enter the password each time a setting is changed. You should record the password and keep a copy of it in a safe place. If you forget the password, you cannot change any settings.

To add a password to protect pcAnywhere settings

1. Log on to Windows NT as Administrator.
2. From the Windows Start menu, choose Programs → Symantec PcAnywhere.

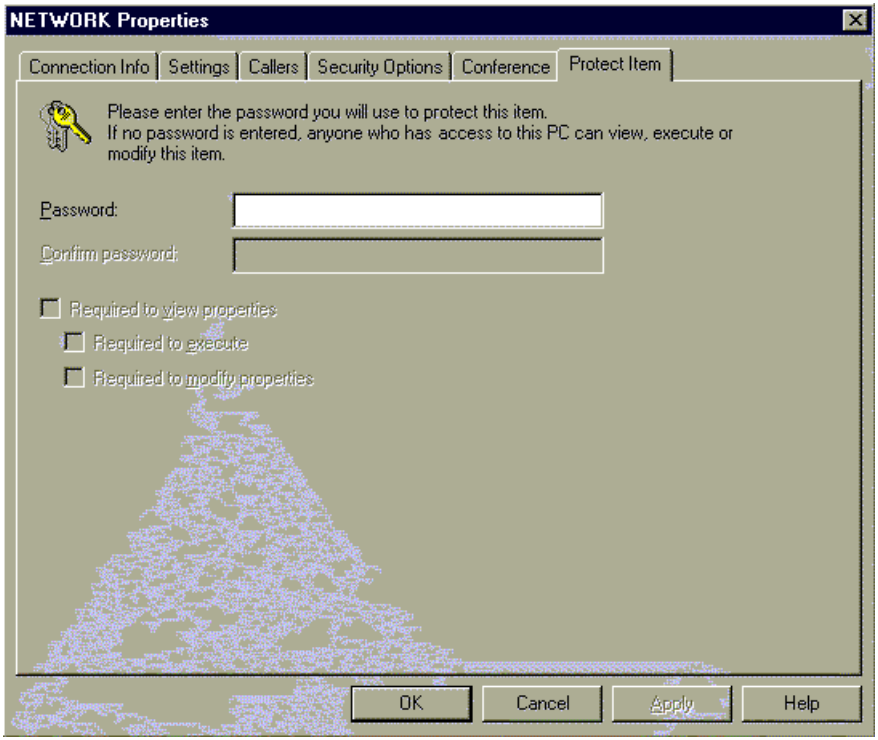
   Result: PcAnywhere starts.
3. If necessary, select Be a Host PC.
4. Click Network.

   Note: Do not double-click the icon or you will begin a pcAnywhere session.
5. From the File menu, choose Properties.

   Result: The NETWORK Properties dialog box appears.

6 Click the Protect Item tab.

Result: The following screen appears:



7 In the Password box, type a password that will protect the pcAnywhere network settings.

8 Type the password again in the Confirm password box.

9 Check the appropriate check boxes for the level of security you desire.

10 Click Apply to save the changes.

11 Click OK.

Checking server events for suspicious activity

Security events

Security auditing is enabled on the server. Suspicious actions by a user are logged as event code 40593 in the Event Browser in the SMI window on the client and in the security log in the Windows NT Event Viewer. The severity of the event depends on the severity of the condition that caused the event. If the severity is Information, the event does not appear in the Alarm Monitor.

Chapter 10

Working with alarms and events

In this chapter

Overview of viewing events 296

Changing the Windows NT EventLog size 298

Using the Windows NT Event Viewer 301

Configuring SNMP on the server 303

Overview of viewing events

Introduction

You can use the Event Browser on the client and the Windows NT Event Viewer to view events. This chapter describes how to view events with the Windows NT Event Viewer on the server. It also describes how to configure the size of the event log.

This chapter describes procedures for the following tasks:

- changing the event log size
- using the Windows NT Event Viewer on the server
- configuring SNMP on the server

Events

Events are log entries that record activities on the Symposium Call Center Server, such as

- sending or receiving messages
- opening or closing applications
- errors

Some events are for information purposes only, while others can indicate problems. Events are categorized by severity.

Event severity

Events are assigned a default severity of Information, Minor, Major, or Critical. The Alarm Monitor does not report Information-level events.

Information

These events indicate that something noteworthy has happened on the system, but do not mean that there is a problem. For example, an information-level event can indicate that a service has started or stopped. These events appear in the Event Browser but not in the Alarm Monitor.

Minor

These events indicate that a non-service-affecting fault condition exists, and that you must take corrective action to prevent a more serious fault. For example, a minor event is generated when the file system is 90 percent full.

Major

These events indicate that a service-affecting condition has developed and an urgent corrective action is required. The event condition can cause severe degradation in server performance, and you must restore full capacity. For example, a major event is generated when the file system is 100 percent full.

Critical

These events indicate that a service-affecting condition has occurred and an immediate corrective action is required. Critical events are reported when a component is completely out of service and you must take immediate action to restore it. For example, a critical event is generated when the file system crashes.

SNMP

The Symposium Call Center Server also supports Simple Network Management Protocol (SNMP) traps. You can use SNMP to send events to a Network Management System (NMS) on your network.

Changing the Windows NT EventLog size

Introduction

The Windows NT EventLog resides on the server and stores a record of all events that occur on the server. If you change the size settings, the results affect the entire server. You must log on to the server to change the event log size.

Note: Only qualified technicians should make changes to these settings.

Event wraparound

The EventLog size is fixed. It does not increase in size as new events are added to the log. When the log is full and a new event is generated, the server removes the *oldest* event report in the log and replaces that report with the newest one.

CAUTION

Risk of data loss

Only qualified technicians should make changes to these settings.

Log size changes

If you reduce the size of the event log, then the server can store fewer events. If you increase the event log size, you reduce the amount of available disk space on the server, which might slow response times for retrieving events from the Event Browser.

Application events, such as Symposium Call Center Server events, are stored in the Application log. If you change the Application log size, you also change the number of Symposium Call Center Server events that are stored.

Note: Do not change the event log wrapping mechanism and size.

Default event log size

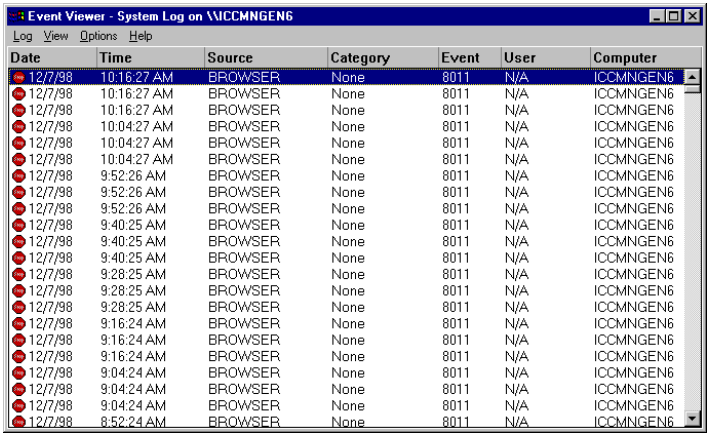
If you change the log size for the Symposium Call Center Server, do not use the Default button. This button sets the log size to the Windows NT default settings. During a Symposium Call Center Server installation, the log settings are set to the following values:

Log name	Size	Event log wrapping
Application log	8 Mbytes	Overwrite events as needed.
System log	512 kbytes	Overwrite events as needed.
Security log	512 kbytes	Overwrite events as needed.

To change the event log size

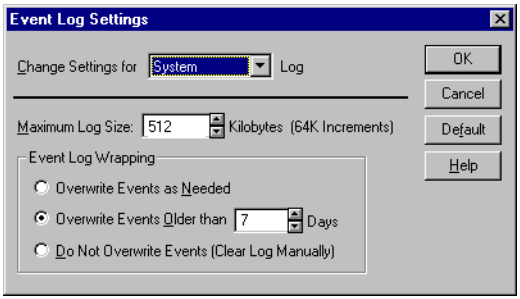
1 Choose Start → Programs → Administrative Tools (Common) → Event Viewer.

Result: The Event Viewer appears.


Event Viewer - System Log on \\ICCMNGEN6
Log View Options Help
Date Time Source Category Event User Computer
12/7/98 10:16:27 AM BROWSER None 8011 N/A ICCMNGEN6
12/7/98 10:16:27 AM BROWSER None 8011 N/A ICCMNGEN6
12/7/98 10:16:27 AM BROWSER None 8011 N/A ICCMNGEN6
12/7/98 10:04:27 AM BROWSER None 8011 N/A ICCMNGEN6
12/7/98 10:04:27 AM BROWSER None 8011 N/A ICCMNGEN6
12/7/98 10:04:27 AM BROWSER None 8011 N/A ICCMNGEN6
12/7/98 9:52:26 AM BROWSER None 8011 N/A ICCMNGEN6
12/7/98 9:52:26 AM BROWSER None 8011 N/A ICCMNGEN6
12/7/98 9:52:26 AM BROWSER None 8011 N/A ICCMNGEN6
12/7/98 9:40:25 AM BROWSER None 8011 N/A ICCMNGEN6
12/7/98 9:40:25 AM BROWSER None 8011 N/A ICCMNGEN6
12/7/98 9:40:25 AM BROWSER None 8011 N/A ICCMNGEN6
12/7/98 9:28:25 AM BROWSER None 8011 N/A ICCMNGEN6
12/7/98 9:28:25 AM BROWSER None 8011 N/A ICCMNGEN6
12/7/98 9:28:25 AM BROWSER None 8011 N/A ICCMNGEN6
12/7/98 9:16:24 AM BROWSER None 8011 N/A ICCMNGEN6
12/7/98 9:16:24 AM BROWSER None 8011 N/A ICCMNGEN6
12/7/98 9:16:24 AM BROWSER None 8011 N/A ICCMNGEN6
12/7/98 9:04:24 AM BROWSER None 8011 N/A ICCMNGEN6
12/7/98 9:04:24 AM BROWSER None 8011 N/A ICCMNGEN6
12/7/98 9:04:24 AM BROWSER None 8011 N/A ICCMNGEN6
12/7/98 8:52:24 AM BROWSER None 8011 N/A ICCMNGEN6

2 Choose Log → Log Settings.

Result: The Event Log Settings dialog box appears.



Note: Symposium Call Center Server events are stored in the Application log. Change the Application log size to change the number of Symposium Call Center Server events that are stored.

3 In the Change Settings for box, select the log for which you want to change the size.

4 In the Maximum Log Size box, enter a log size in kbytes.

For the Application log, follow these guidelines:

- For a small call center, set the log size to 512.
- For a medium-sized call center, set the log size to 6015 or greater, depending on the number of days you want to keep the events.
- For a large call center, set the value at 10 048 or greater, depending on the number of days you want to keep events.

5 Click OK to accept the changes.

6 Choose File → Close.

Using the Windows NT Event Viewer

Introduction

Most of the information provided by the Windows NT Event Viewer on the server is also accessible through the Event Browser on the client. The following type of information is not available on the client:

- database events (from the application log)
- MAS debug events (from the application log)

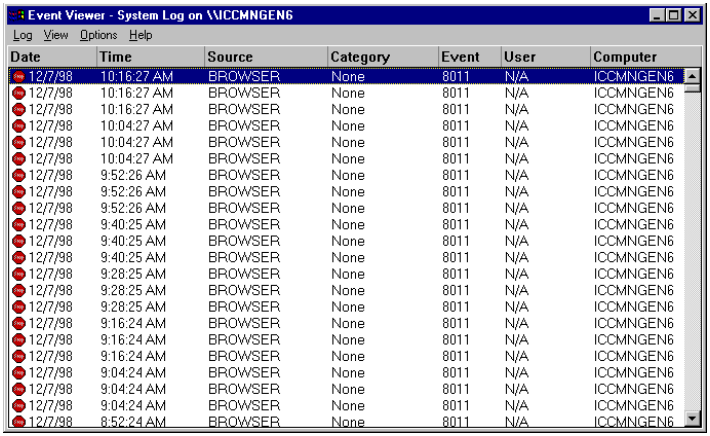
When to use

Use the Windows NT Event Viewer on the server to view information that you cannot view through the Event Browser on the client.

To open the Windows NT Event Viewer

1 From the Windows Start menu, choose Programs → Administrative Tools (Common) → Event Viewer.

Result: The Event Viewer appears.


Event Viewer - System Log on \\ICCMNGEN6
Log View Options Help
Date Time Source Category Event User Computer
12/7/98 10:16:27 AM BROWSER None 8011 N/A ICCMNGEN6
12/7/98 10:16:27 AM BROWSER None 8011 N/A ICCMNGEN6
12/7/98 10:16:27 AM BROWSER None 8011 N/A ICCMNGEN6
12/7/98 10:04:27 AM BROWSER None 8011 N/A ICCMNGEN6
12/7/98 10:04:27 AM BROWSER None 8011 N/A ICCMNGEN6
12/7/98 10:04:27 AM BROWSER None 8011 N/A ICCMNGEN6
12/7/98 9:52:26 AM BROWSER None 8011 N/A ICCMNGEN6
12/7/98 9:52:26 AM BROWSER None 8011 N/A ICCMNGEN6
12/7/98 9:52:26 AM BROWSER None 8011 N/A ICCMNGEN6
12/7/98 9:40:25 AM BROWSER None 8011 N/A ICCMNGEN6
12/7/98 9:40:25 AM BROWSER None 8011 N/A ICCMNGEN6
12/7/98 9:40:25 AM BROWSER None 8011 N/A ICCMNGEN6
12/7/98 9:28:25 AM BROWSER None 8011 N/A ICCMNGEN6
12/7/98 9:28:25 AM BROWSER None 8011 N/A ICCMNGEN6
12/7/98 9:28:25 AM BROWSER None 8011 N/A ICCMNGEN6
12/7/98 9:16:24 AM BROWSER None 8011 N/A ICCMNGEN6
12/7/98 9:16:24 AM BROWSER None 8011 N/A ICCMNGEN6
12/7/98 9:16:24 AM BROWSER None 8011 N/A ICCMNGEN6
12/7/98 9:04:24 AM BROWSER None 8011 N/A ICCMNGEN6
12/7/98 9:04:24 AM BROWSER None 8011 N/A ICCMNGEN6
12/7/98 9:04:24 AM BROWSER None 8011 N/A ICCMNGEN6
12/7/98 8:52:24 AM BROWSER None 8011 N/A ICCMNGEN6

2 From the Log menu, choose one of the following options:

- Click Application to view application, database, and MAS debug events.
- Click Security to view security events.
- Click System to view system events.

Configuring SNMP on the server

Introduction

Windows NT provides a Simple Network Management Protocol (SNMP) version 1.0 agent, which runs as a service on the Symposium Call Center Server. You can use this service to forward events to a Network Management System (NMS) on your network. To do so, you must do the following:

- Configure the Windows NT SNMP service on the server (see "To configure the Windows NT SNMP service to forward traps to an NMS" on page 305).
- Select the types of events to be forwarded to the NMS (see "To select the types of events to be forwarded" on page 306).
- Configure the NMS (see "Configuring the NMS" on page 307).

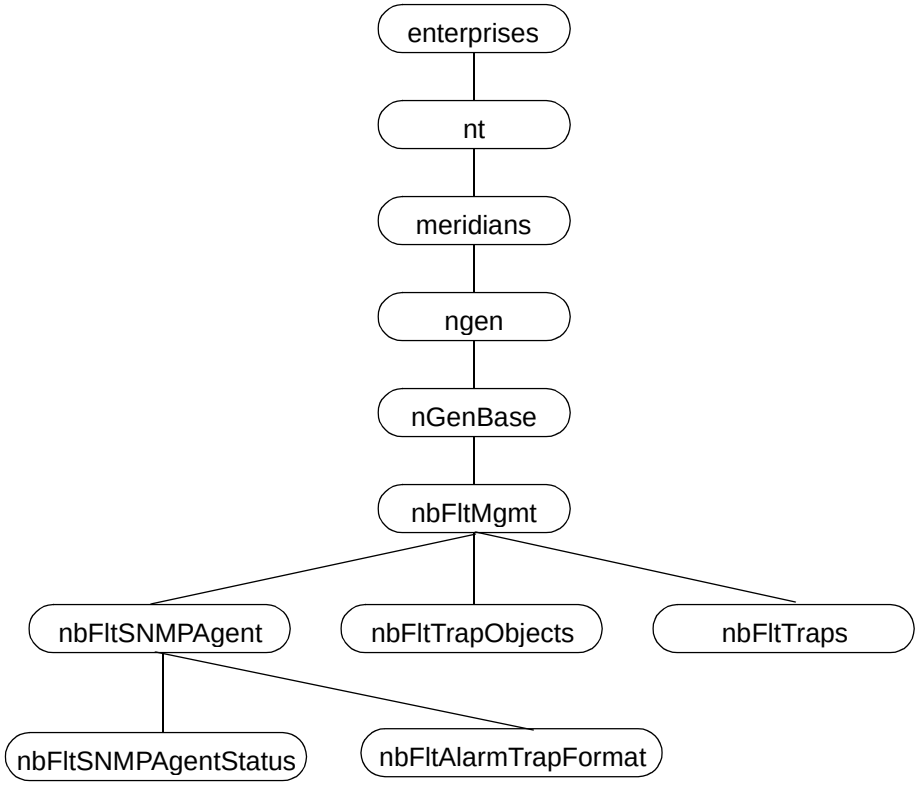
Overriding event filtering for individual events

When you configure the server, you choose the types of events to be forwarded to the NMS. For example, you might choose only to forward Unknown and Critical events. However, you might also be interested in tracking a Minor event, such as 41553. If you configure the server to forward all Minor events, a significant amount of traffic is generated on your CLAN. To avoid this, but still track event 41553, you can use the Event Preferences feature. This feature allows you to temporarily assign event 41553 a priority of Critical. After you do so, the event is automatically forwarded to the NMS.

For detailed instructions, see the *Administrator's Guide*.

Format of the MIB

The Symposium Call Center Server supports the Windows standard MIB-II. In addition, it provides its own MIB, the NGen MIB. The NGen MIB has the following structure:

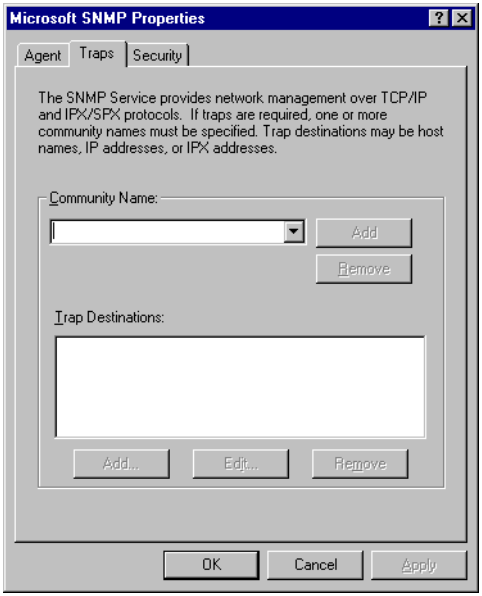


To configure the Windows NT SNMP service to forward traps to an NMS

1. Log on to Windows NT as NGenSys.
2. From the Windows Start menu, choose Settings → Control Panel.
3. Double-click the Network icon.

   Result: The Network property sheet opens.
4. Click the Services tab.
5. In the list of Network Services, select SNMP Service.
6. Click Properties.

   Result: The SNMP Properties property sheet appears.
7. Click the Traps tab.



8. If no community name is defined, type **public** and click Add.
9. Add the IP address of the NMS to which the server will send traps, by clicking Add and typing the IP address of the NMS.
10. Click OK.

    Result: The SNMP Properties property sheet closes.

11 Click Close.

Result: The Network property sheet closes.

12 In the Control Panel window, double-click the Services icon.

Result: The Services dialog box appears.

13 Select the SNMP Trap Service.

14 Click Start.

Result: The SNMP Trap Service starts.

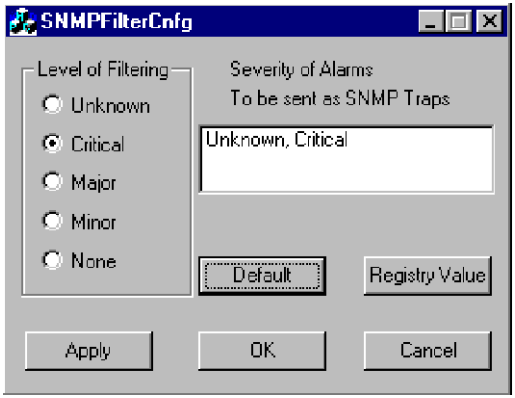
15 Click Close.

To select the types of events to be forwarded

1 From the Windows Start menu, choose Programs → Windows NT Explorer.

2 Browse to the folder D:\Nortel\iccm\bin, and double-click SNMPFilterCnfg.exe.

Result: The SNMPFilterCnfg dialog box appears.



3 In the Level of Filtering box, select the types of events you want to forward to the NMS.

Note: All event types that appear above the selected event type are also forwarded. For example, if you select Major, all Unknown, Critical, and Major events are forwarded.

4 Click OK.

Configuring the NMS

After you configure the server, you must configure the NMS to receive and interpret traps (including identification to the NMS and the origin and format of the Symposium Call Center Server traps). To do so, you must load or compile the Symposium Call Center Server Management Information Block (MIB) files in the NMS. The MIB files describe the format of the traps generated by the server, and they are named

- nt-ref.mib (MIB-II)
- nbflt.mib (NGen MIB)

The files are available in the following locations:

- on the Symposium Call Center Server Application CD, in the path mas\platform\default\nortel\data
- on the Symposium Call Center Server, in the path d:\nortel\data

For more information about configuring your NMS, refer to your NMS documentation.

Chapter 11

Backing up data

In this chapter

Overview of backing up data 310

Section A: Scheduling backups 317

Section B: Performing RAID procedures on a 701t, 702t, 1000t, or 1001t 327

Section C: Performing RAID procedures on a 1003t 339

Section D: Full backups using a third-party utility 351

Overview of backing up data

Introduction

The Symposium Call Center Server backup utility backs up the server database. It enables you to recover from database corruption. (The backup utility is not intended to restore individual pieces of information or files that were deleted by accident.)

ATTENTION

To do a full backup of Symposium Call Center Server Release 4.0, you must use a third-party backup utility. For more information on full backups, see Section D: “Full backups using a third-party utility,” on page 351.

Note: To back up data on the client, you must provide separate software and hardware.

Checklist for performing backups

Step	4
After installing your server, or after making changes to your server configuration (for example, IP addresses), create a Platform Recovery disk. For more information, see “To create a Platform Recovery disk” on page 312.	
Ensure that you have enough backup tapes to rotate them. See page 314.	
Ensure that you have a head-cleaning kit and that you clean the tape drive regularly. See page 315.	
Schedule a daily database backup from the client PC. Also schedule a full backup if you do not have a current full backup tape. See page 319.	

CAUTION

Risk of data loss

The server does not contain a default backup schedule. Perform a backup after all system hardware and software are installed and also before and after any upgrade. Schedule a daily database backup with tape rotation.

Backup types and backup speeds

The following table provides a summary description of the types of backups:

Backup type	Definition	Result	Approximate speed of backup
Database backup	Backs up to tape all information stored in the Symposium Call Center Server database.	*Online* operation: Call processing continues as the backup executes. No Symposium Call Center Server services are stopped.	■ 3.0 Gbytes/hour with a 4 mm DAT drive ■ 6 Gbytes/hour with a Tandberg MLR1 QIC drive
RAID drive backup	Backs up drives to a spare drive pack.	*Offline* operation: Fast system backup and simple restore.	■ 6 Gbytes/hour on a 1000t, 701t, or 702t ■ 13.5 Gbytes/hour on a 1003t
Full backup **Note:** Full backup requires a third-party backup utility.	Backs up the entire system using a third-party backup utility.	*Offline* operation: Allows you to restore the system to its state at the time of the backup.	See the documentation for the third-party backup utility.

Note: The approximate speed of the backup depends on the load on the system. These speeds are guidelines only.

When to use a database backup

Nortel Networks recommends performing a daily database backup. A database backup allows you to restore all system data (scripts and statistics) after a crash.

Note: If your server is equipped with a mirrored Redundant Array of Inexpensive Disks (RAID) system, recovery from a single drive failure does not require a tape backup. However, you should still continue to perform daily backups.

To perform a full system recovery using a database backup, you must create a Platform Recovery disk. Nortel Networks recommends you create a Platform Recovery disk after any major modifications to the system.

To create a Platform Recovery disk

1. Insert a disk into the floppy drive.
2. From the Windows Start menu, choose Programs → Symposium Call Center Server → Migration.
3. Select Dump system information to floppy disk and click Continue.

   Result: The program prompts you to insert a disk.
4. Click OK.

   Result: The program saves the configuration to the disk, and displays messages telling you that the save is complete.
5. Click OK in response to these messages.

   Result: The program prompts you to remove the disk.
6. Click OK.
7. Label the disk with “Platform Recovery Disk” and the current date, and store it in a safe place.

When to use a RAID backup

RAID backups are recommended for platforms with hot-swap disk configurations. They provide a fast mechanism for backing up and restoring your system. Used in conjunction with a database backup, a RAID backup allows you to restore your system to its condition preceding a crash.

ATTENTION

RAID backups do not replace full and database backups. Make sure you have a full backup available before you perform a RAID backup. Perform a daily database backup unless you perform daily RAID backups.

When to use a full backup

ATTENTION

To create a full backup, you must use a third-party backup utility. For information on preparing for a third-party backup, see Section D: “Full backups using a third-party utility,” on page 351.

A full backup allows you to restore the server to its state at the time of the backup. It is useful for recovery from a catastrophic failure in the server’s disk subsystem. In combination with a current database backup, a full backup can help you minimize your data loss.

You should create a full backup

- after installation and configuration of a new server
- before and after a major upgrade of the server (for example, from Release 1.5 to Release 4.0)
- before and after any major hardware upgrades (such as a disk expansion, BIOS upgrade, or platform migration)

Daily maintenance and database backups

The daily maintenance process consolidates statistics. It runs on the server at midnight and takes several hours, depending on the system configuration. Frequent delays occur if you schedule a backup at the same time as the daily maintenance process. The server puts the backup on hold until the maintenance process is completed. The delay is logged in the backup log file, and it has no impact on the system or backup.

Backup tape maintenance

Dedicated tapes for backup types

Use one backup tape for each backup, regardless of whether extra space is available on the tape. Make sure you have enough backup tapes on hand so that you can save backups for a safe period of time before you have to overwrite an old backup.

CAUTION

Risk of overwriting data

After a backup, the tape is not ejected from the tape drive. Rotate tapes after *each* backup to avoid overwriting data.

Tape size

Ensure the backup tape is large enough to store the data you are backing up. You cannot use multiple backup tapes for a single backup.

Tape rotation

Rotate tapes daily and store them at an off-site location. Do not keep a tape in the tape drive for more than one or two days for the following reasons:

- The next backup might overwrite existing data on the tape. If the same tape is used for several consecutive nightly backups and the tape becomes damaged, no other backup is available to restore lost data.
- Consistent reuse of the same tape accelerates wear on the tape. Tapes might need replacement earlier than their normal life span of 2000 uses.

Nortel Networks recommends storing backup tapes off-site for as long as possible before reusing them. Store tapes for at least two weeks.

Tape retensioning

You must retension a tape before performing a full restore of the system. Loose spots can cause the tape to skip past the tape drive heads. For more information, see “Troubleshooting other problems” on page 498.

Tape drives

Backups can be performed on the following tape drives on MAS platforms:

- Tandberg MLR1 QIC
- 4 mm DAT drive

On other platforms, use a Windows NT 4.0 compliant tape drive large enough to capture the information.

Head-cleaning kit

Nortel Networks recommends purchasing a head-cleaning tape to prolong the life of your tape heads and ensure the quality of your backups. You should clean tape drives based on how often they are used.

Tape cartridges used per day	1	2	3	4 or more
Cleaning interval	Weekly	Every other day	Every other day	Daily

Most cleaning kits suggest how often heads should be cleaned.

Section A: Scheduling backups

In this section

Overview 318
Scheduling a backup 319
Monitoring backups 324
Other procedures for backups 325

Overview

Introduction

Use the Backup Scheduler on the client PC to schedule backups for the server. There are no predefined backup schedules.

Administrative privileges required

To schedule backups, you must log on to the server from the client PC as sysadmin.

Scheduling a backup

Introduction

To ensure that your system information can be restored after a hardware failure or data corruption, schedule regular backups. For scheduling suggestions, see “When to use a database backup” on page 312.

ATTENTION

Ensure that you select PrimaryServerTape as the backup device in the following procedure. This represents the local tape drive.

Note: To recover your system, you must have a Platform Recovery disk. See “To create a Platform Recovery disk” on page 312.

Overwriting unusable data

When you schedule a backup, the overwrite option is selected automatically. This option overwrites any data on the tape. In addition, be aware of the following events that occur when a backup is canceled:

- For DAT drives, the software searches for the “end of tape” marker and rewinds to the spot where the tape was stopped. Data for the next backup is appended immediately after the last usable data from the previous backup, overwriting the unusable data.

  Note: If the tape has been ejected, the tape cannot be rewound in this way.

- QIC drives do not use an “end of tape” marker. The unusable data from the previous backup remains on the tape, and the data for the new backup is recorded following the unusable data.

To schedule a backup

1. Remove the write-protect tabs from the backup tapes.
2. Label your backup tapes with the following information:
   - backup date and time
   - backup files
   - name of person who is performing the backup
3. Insert the tape properly into the tape drive on the server.

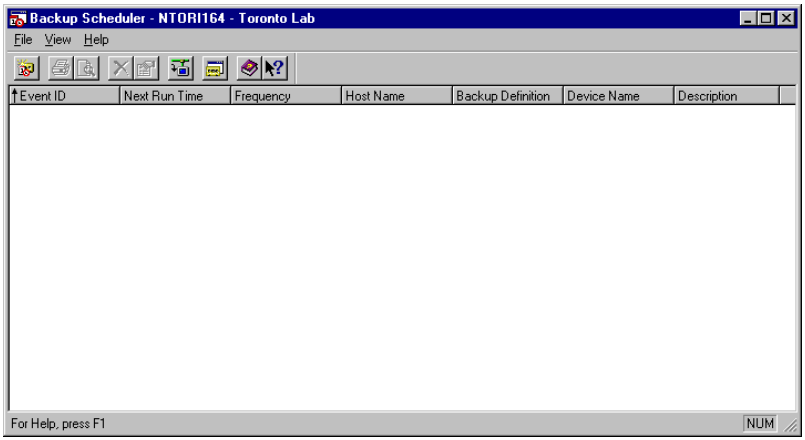
CAUTION

Risk of equipment damage

If you insert the tape incorrectly, you run the risk of damaging your system.

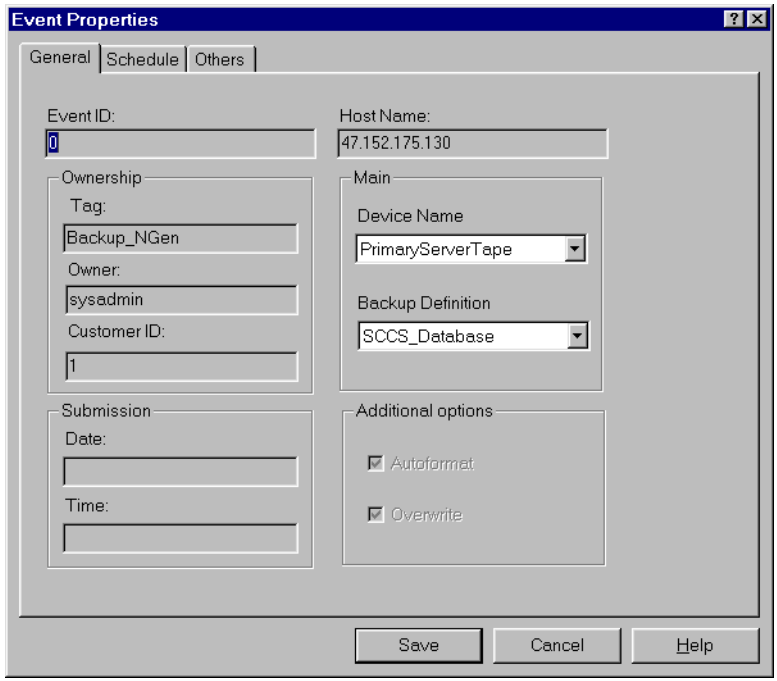
4. At the client PC, log on to the server as sysadmin.
5. From the SMI window, choose System Administration → Server Backup → Backup Scheduler.

   Result: The Backup Scheduler window appears.



6 In the Backup Scheduler window, choose File → New Schedule.

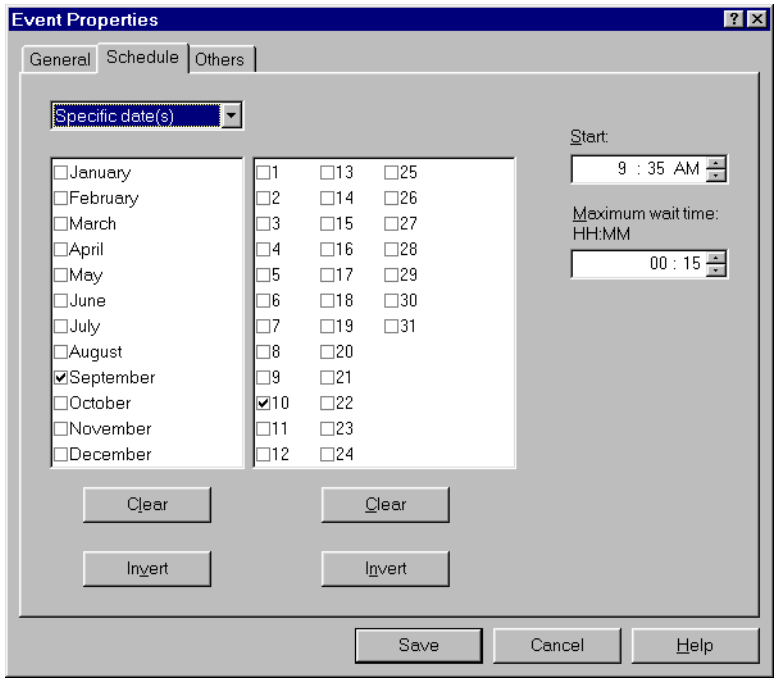
Result: The Event Properties window appears.



7 Select PrimaryServerTape in the Device Name box. This represents the local tape drive.

8 Click the Schedule tab.

Result: The Schedule property page appears.



9 Select the type of schedule (daily, weekly, monthly, yearly, or specific date).

10 Select the month, day, or date on which the backup should run. (The options available depend on the type of schedule selected.)

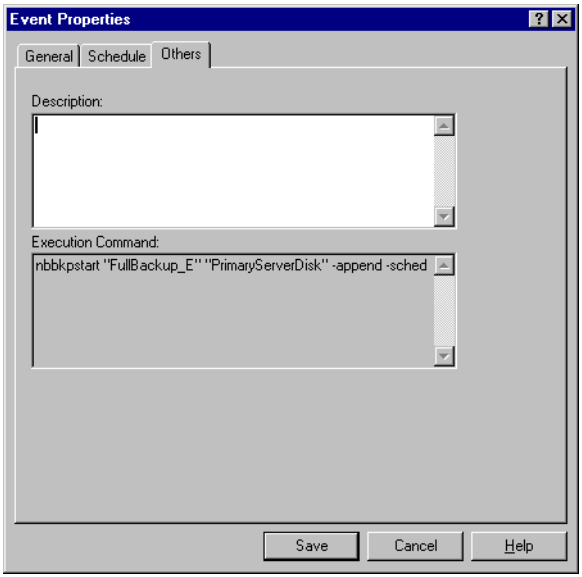
11 In the Start box, select the time to start the backup.

Note: The backup is scheduled according to the server time, which is not necessarily the same as the client PC time.

12 In the Maximum wait time box, enter the length of time the backup can wait before starting the backup. This time is required in case a scheduling conflict with other tasks forces the backup to wait. If the wait time expires before the backup is able to start, then the backup is skipped. For example, you can schedule a backup for a non-peak period, but in three hours the morning shift arrives. In this case, you can enter 03:00 as the interval time. This ensures that the backup does not take place when the morning shift arrives.

13 Click the Others tab.

Result: The Others property page appears.



14 In the Description box, type the description or the purpose of the backup.

15 Click Save.

Result: The backup is scheduled.

Monitoring backups

Introduction

You can monitor the status of a running backup with the Backup Status window on the client PC. To view the Backup Status window, from the Backup Scheduler window, select → View → View backup status.

You can also use view backup status in the log file.

Backup Status window

The Backup Status window shows whether any files were skipped or copied in error during an SCCS_Database backup.

If any files are not copied successfully, a minor alarm is generated. Obtain the Event ID from the alarm in the Alarms Monitor for more information.

Using log files

To verify that a backup was successful, use a text editor (such as Notepad or WordPad) to check the backup log. The backup log is generated at the end of the backup, and is stored on the server in the following directory:

d:\Nortel\data\backup\backuplogs

The file name for a backup log is SCCS_Database yymmdd hhmm.LOG, where yymmdd hhmm are the date and time of the backup (for example, 990817 1415 represents 2:15 p.m. on August 17, 1999).

If a database backup is successful, the backup log contains all of the following messages:

```
Starting backup of ‘SCCS_Database’ to device
‘PrimaryServerTape’
The backup of ‘SCCS_Database’ was completed successfully.
```

If these messages are not present, the backup was unsuccessful.

Other procedures for backups

Introduction

You can change any detail of a scheduled backup using the Event Properties window. You can also delete backups from this window.

To change a scheduled backup

On the Backup Scheduler window, double-click the scheduled backup you want to change.

For step-by-step instructions, press F1 to access the online Help.

To delete a scheduled backup

On the Backup Scheduler window, select the scheduled backup you want to delete and choose File → Delete.

For step-by-step instructions, press F1 to access the online Help.

To cancel a running backup

Click Cancel in the Backup Status window.

Note: If you cancel the backup, any data that was written to the backup device is unusable.

Section B: Performing RAID procedures on a 701t, 702t, 1000t, or 1001t

In this section

Overview of RAID procedures on a 701t, 702t, 1000t, or 1001t 328
Performing a consistency check on a 701t, 702t, 1000t, or 1001t 329
Splitting the RAID drives on a 701t, 702t, 1000t, or 1001t 331
Performing a RAID backup on a 701t, 702t, 1000t, or 1001t 337

Overview of RAID procedures on a 701t, 702t, 1000t, or 1001t

Introduction

If your server is equipped with RAID, you can use the RAID subsystem and a spare disk set to create a complete system backup. RAID backups provide a mechanism for fast backup and simple restore.

Splitting and rebuilding the RAID drives

When you are making significant changes to your server (for example, during a conversion, or during application of PEPs), you can split the RAID drives. This ensures that only one set of drives is affected by the changes. If you have any problems, you can easily back out of the changes by using the other set of drives.

When you are satisfied that your system is running properly, you can rebuild the RAID drives.

Note: The procedures for splitting and rebuilding the RAID drives are different for different platforms. Make sure you follow the proper procedure for your hardware platform.

RAID backups and tape backups

RAID backups do not replace tape backups. Even if you are using RAID backups, create a full tape backup after installation, upgrade, or major modifications to the system. Unless you are performing daily RAID backups, you should continue to perform daily database backups.

Note: The procedure for RAID backups is different for different platforms. Make sure you follow the proper procedure for your hardware platform.

Nortel Networks recommends performing a RAID backup procedure for platforms equipped with hot-swap disk configurations.

Performing a consistency check on a 701t, 702t, 1000t, or 1001t

Introduction

Perform regular consistency checks prior to backing up or splitting a RAID drive. The consistency check is time-consuming, so you might prefer to perform it a few days before splitting or backing up your RAID drives.

Note: A consistency check is not necessary every time you split the RAID drives.

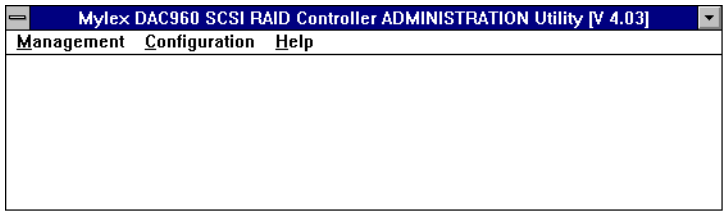
You can perform the consistency check while the server is online, but it degrades server performance. Therefore, Nortel Networks recommends that you perform the operation during non-peak times. A consistency check of a 4 Gbyte volume takes approximately 45 minutes.

To perform a consistency check

1 On the server, log on to Windows NT as NGenSys.

2 Start the dac960 Administration utility by running dacadm.exe from a command line.

Result: The Mylex DAC960 SCSI RAID Controller Administration Utility main window appears.



3 Perform a consistency check of the RAID system packs by choosing Management → Consistency Check.

Result: The Consistency Check dialog box appears.

4 Select the first system drive to check, and click OK.

Result: The following message appears: `Restore consistency check in case of error?`

5 Click No.

6 Repeat steps 4 and 5 for the remaining system drives. (For a 701t, 702t, or 1000t, check drives B-1 and C-1. For a 1001t, check drives B-1, C-1, D-1, and E-1.)

7 Click OK to close the Consistency Check dialog box.

8 Exit from the dac960 Configuration utility.

Splitting the RAID drives on a 701t, 702t, 1000t, or 1001t

Introduction

Split the RAID drives when you are converting the server, upgrading the server, or applying PEPs or service update packs.

About splitting the RAID drives

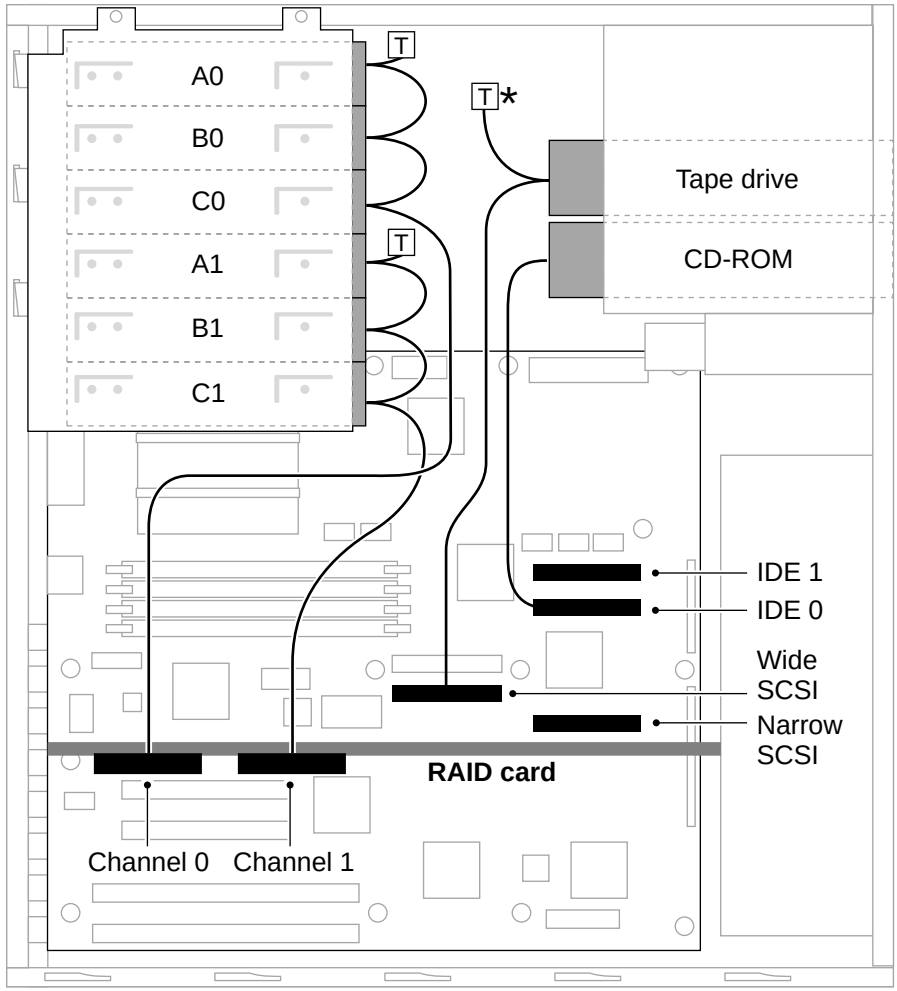
When you split the RAID drives, you are breaking the mirrored image of the RAID hard drives (channels 0 and 1) and disabling the channel 1 hard drives. Any software activity that is performed on the system affects only the channel 0 hard drives. The channel 1 hard drives continue to have the current system configuration, and you can use them to rebuild the RAID hard drives if a problem occurs during conversion.

Splitting the RAID drives is supported for 1000t, 701t, 702t, and 1001t platforms with the following:

- a Mylex RAID controller (dac960PL with firmware revision 3.x, or dac960PG with any firmware revision)
- RAID 1
- Platform Upgrade Kit

Platform configurations

A 701t or 702t system has three system drives set up in a RAID configuration. These drives should be labeled A-0, A-1, B-0, B-1, C-0, and C-1, where 0 and 1 are the channel numbers. The following diagram shows the SCSI cable connections for the two channels to the RAID controller card:



Note 1: A "T" indicates an active terminator.
Note 2: *A wide SCSI active terminator (A0766997) must be the last device on the SCSI bus.

G100812

The 1000t and 1001t systems are hot-swappable. The 1000t has three system drives, labeled A-0, A-1, B-0, B-1, C-0, and C-1, where 0 and 1 are the channel numbers. The 1001t system has five system drives, labeled A-0, A-1, B-0, B-1, C-0, C-1, D-0, D-1, E-0, and E-1. On the 1000t and 1001t systems, channel 0 is the top set of drives, and channel 1 is the bottom set of drives.

Before you begin

- Make sure that the RAID subsystem is cabled as specified in the *Meridian Application Server Installation Guide* for your hardware platform.

  Note: Ensure that the SCSI cable is correctly installed. Reversed cables increase the risk of data loss.
- Back up the RAID Controller configuration to a disk.
- Make sure you have a full or database tape backup available.
- Make sure that the Windows NT Repair disk is up to date.
- Make sure that you have the dac960 Configuration Disk 1/2 (NTRH8003 Release 3.0)
- Nortel Networks recommends that you perform a consistency check (see “Performing a consistency check on a 701t, 702t, 1000t, or 1001t” on page 329).

  Note: A consistency check is not necessary every time you split the RAID drives.

Understanding the dac960 Configuration Utility

The dac960 Configuration Utility is a DOS-based utility. It has a status bar at the bottom of the screen, which indicates the action that is taking place. Check the status bar frequently while you are using this utility.

To split the RAID drives

1. On the server, log on to Windows NT as Administrator.
2. Insert the bootable dac960 Configuration disk in the floppy disk drive.

   Note: If the dac960 disk is not bootable, insert a bootable disk to start the system until the DOS prompt appears, and then insert the dac960 Configuration disk.
3. Shut down and restart the server.

   a. For Windows NT 4.0, from the Start menu, choose Shutdown.

   b. Click Restart the computer, and click Yes.
4. If you are prompted for the date and time, make sure the displayed date and time are correct. If they are correct, press Enter. If they are not correct, enter the correct date and time.

   Result: The A:\> prompt appears.
5. Type **CD \daccfg** and press Enter.

   Result: The A:\DACCFG\> prompt appears.
6. Type **daccf** and press Enter.

   Result: The daccf utility starts and scans the SCSI buses. The main menu appears.
7. If you do not have a current backup of your RAID controller configuration, make one before you proceed. To do so, follow these steps:

   a. From the dac960 utility main menu, choose Tools and press Enter.

   Result: The Tools menu appears. On the left side of the window is a list of the drives and their current states. All drives (both channel 0 and 1) should be ONL (online).

   b. Choose Backup/Restore Conf and press Enter.

   c. Choose Backup configuration and press Enter.

   d. Remove the dac960 utility disk and insert a new formatted disk in floppy drive A.

   e. Type **A:\raidcfg** and press Enter.

   Result: The following message appears: `Existing files if any will be overwritten.`

   f. Select Yes and press Enter.

g. When the status bar indicates that the configuration has been successfully saved, remove the disk and label it RAID controller configuration backup.

h. Insert the dac960 Configuration disk and press Enter to continue.

i. Press Esc to return to the main menu.

8 From the main menu, choose Tools and press Enter.

9 Select Kill Drive and press Enter.

Result: The utility shows the system drives and their current statuses. The drive status can be ONL (online) or DED (dead).

10 Select drive A-1 and press Enter twice.

11 When prompted to confirm your action, select Yes and press Enter.

Result: Drive A-1 is marked as DED (dead).

12 Record the SCSI channel and ID of the drive.

13 Repeat steps 9 to 12 for the remaining system packs. (For a 701t, 702t, or 1000t, kill drives B-1 and C-1. For a 1001t, kill drives B-1, C-1, D-1, and E-1.)

14 Exit from the dac960 Configuration utility by pressing Esc and selecting Yes when prompted to exit.

15 Power down the server.

16 Disconnect the hard drives marked DED as follows:

- For a hot-swap system (1000t or 1001t platform), unseat the hard drives from their slots, but do not remove them.
- For a non-hot-swap system (701t or 702t platform), disconnect the SCSI cables for channel 1 (see the preceding illustration).

For detailed instructions, see the maintenance guide for your hardware platform.

Note: If you decide to remove the drives, be sure to label them with their SCSI channel and ID, and store them in antistatic bags and suitable foam material.

CAUTION

Risk of data loss

If you label drives incorrectly, you might not be able to recover your system using these drives.

17 Remove the dac960 Configuration utility disk.

18 Power up the server.

Result: When the server starts, you see errors indicating that the system has found several dead drives. The list of drives should include all of the channel 1 drives that you killed in this procedure.

When you log on to Windows NT, the dac960 RAID Control Monitor window appears. It reports the statuses of the dead drives. You can minimize this window.

After the procedure

When you are confident that the procedure (upgrade, conversion, or PEP installation) was successful, and that the server is operating properly, you can rebuild the RAID drives (see “Rebuilding the RAID drives on a 701t, 702t, 1000t, or 1001t” on page 416).

If the procedure is unsuccessful, you can recover the system using the channel 1 drive (see “Recovering a 701t, 702t, 1000t, or 1001t system running in split mode” on page 419).

Performing a RAID backup on a 701t, 702t, 1000t, or 1001t

Introduction

Full backup with RAID drives is supported for 1000t, 701t, 702t, and 1001t platforms with the following:

- a Mylex RAID controller (dac960PL with firmware revision 3.x, or dac960PG with any firmware revision)
- RAID 1
- a Platform Upgrade Kit

Before you begin

- Make sure that the RAID subsystem is cabled as specified in the *Meridian Application Server Installation Guide* for your hardware platform.

CAUTION

Risk of data loss

Ensure that the SCSI cable is correctly installed. Reversed cables increase the risk of data loss.

- Back up the RAID Controller configuration to a disk.
- Make sure you have a full or database tape backup available.
- Make sure that the Windows NT Repair disk is up to date.
- Make sure that the following components are available:
  - dac960 Configuration Disk 1/2 (NTRH8003 Release 3.0)
  - a new or blank formatted disk for each RAID system pack
- Nortel Networks recommends that you perform a consistency check (see “Performing a consistency check on a 701t, 702t, 1000t, or 1001t” on page 329).

  Note: A consistency check is not necessary every time you split the RAID drives.

To perform a RAID backup

1 Split the RAID drives, following steps 1 to 15 in “Splitting the RAID drives on a 701t, 702t, 1000t, or 1001t” on page 331.

Note: Remove the hard drives marked DED, and label them with their SCSI channel and ID. For detailed instructions, see the maintenance guide for your hardware platform.

CAUTION

Risk of data loss

If you label drives incorrectly, you might not be able to recover your system using these drives.

2 Store the hard drives in antistatic bags and suitable foam material. (Use the original packaging, if it is available.)

3 Make sure that the SCSI IDs are set correctly on the new or blank formatted hard drives.

- For a hot-swap system (1000t or 1001t platform), set the SCSI ID to 0.
- For a non-hot-swap system (701t or 702t platform), use the jumpers on the drives to set the SCSI IDs correctly.

For detailed instructions, see the maintenance guide for your hardware platform.

4 Install the new hard drives.

- For a hot-swap system (1000t or 1001t platform), insert the hard drive.
- For a non-hot-swap system (701t or 702t platform), replace the drives.

For detailed instructions, see the maintenance guide for your hardware platform.

5 Rebuild the RAID drives, following steps 5 to 17 in “Rebuilding the RAID drives on a 701t, 702t, 1000t, or 1001t” on page 416.

Section C: Performing RAID procedures on a 1003t

In this section

Overview of RAID procedures on a 1003t 340
Performing a consistency check on a 1003t 341
Splitting the RAID drives on a 1003t 342
Performing a RAID backup on a 1003t 346
Formatting drives on a 1003t 348

Overview of RAID procedures on a 1003t

Introduction

If your server is equipped with RAID, you can use the RAID subsystem and a spare disk set to create a complete system backup. RAID backups provide a mechanism for fast backup and simple restore.

Splitting and rebuilding the RAID drives

When you are making significant changes to your server (for example, during a conversion or during application of PEPs), you can split the RAID drives. This ensures that only one set of hard drives is affected by the changes. If you have any problems, you can easily back out of the changes by using the other set of hard drives.

When you are satisfied that your system is running properly, you can rebuild the RAID drives.

Note: The procedures for splitting and rebuilding the RAID drives are different for different platforms. Make sure you follow the proper procedure for your hardware platform.

RAID backups and tape backups

RAID backups do not replace tape backups. Even if you are using RAID backups, create a full tape backup after installation, upgrade, or major modifications to the system. Unless you are performing daily RAID backups, you should continue to perform daily database backups.

Note: The procedure for RAID backups is different for different platforms. Make sure you follow the proper procedure for your hardware platform.

Nortel Networks recommends performing a RAID backup procedure for platforms equipped with hot-swap disk configurations.

Performing a consistency check on a 1003t

Introduction

Perform regular consistency checks prior to backing up or splitting a RAID drive. The consistency check is time-consuming, so you might prefer to perform it a few days before splitting or backing up your RAID drives.

Note: A consistency check is not necessary every time you split the RAID drives.

You can perform the consistency check while the server is online, but it degrades server performance. Therefore, Nortel Networks recommends that you perform the operation during non-peak times. A consistency check of a 9 Gbyte volume takes approximately 45 minutes.

To perform a consistency check

1. On the server, log on to Windows NT as NGenSys.
2. Start the NetRAID Assistant utility.

   Result: The Server Selection dialog box appears.
3. Select the local server, and make sure access mode is set to Full Access.

   Result: The NetRAID Assistant window appears.
4. Select the drive you want to check in the Logical Devices list.
5. Choose Logical Drv → Check Consistency.

   Result: A message appears, asking if you want to parity check selected devices.
6. Click OK.
7. Click OK to close the Consistency Check dialog box.
8. Exit from the NetRAID Express Tools utility.

Splitting the RAID drives on a 1003t

Introduction

Split the RAID drives when you are converting the server, upgrading the server, or applying PEPs or service update packs.

When you split the RAID drives, you are breaking the mirrored image of the RAID hard drives (channels 0 and 1) and disabling the channel 1 hard drives. Any software activity that is performed on the system affects only the channel 0 hard drives. The channel 1 hard drives continue to have the current system configuration, and you can use them to rebuild the RAID hard drives if a problem occurs during conversion.

Full backup with RAID drives is supported for 1003t platforms with the following components:

- a NetRAID controller
- RAID 1
- the NetRAID Assistant utility

Before you begin

- Make sure that the NetRAID subsystem is cabled as specified in the maintenance guide for your hardware platform.

CAUTION

Risk of data loss

Ensure that the SCSI cable is correctly installed. Reversed cables increase the risk of data loss.

- Back up the NetRAID Controller configuration to a disk.
- Make sure you have a full or database tape backup available.
- Make sure that the Windows NT Repair disk is up to date.
- Nortel Networks recommends that you perform a consistency check (see “Performing a consistency check on a 1003t” on page 341).

Note: A consistency check is not necessary every time you split the RAID drives.

To split the RAID drives

1. On the server, log on to Windows NT as NGenSys.

   If you do not have a current backup of your RAID controller configuration, continue with the following steps. If you have a current backup, skip to step 10.

2. Shut down all Symposium Call Center Server services.

   - From the Windows Start menu, choose Programs → Symposium Call Center Server → Shutdown.

3. Shut down all Sybase services.

   a. From the Windows Start menu, choose Programs → Sybase SQL Server Professional → Services Manager.

      Note: If you cannot select Sybase SQL Server Professional, select Sybase for Windows NT.

   b. Select SQL Server and double-click Stop.

   c. Select Backup Server and double-click Stop.

   d. Close the Services Manager window.

4. To start the NetRAID Assistant utility, select Start → Programs → NetRAID → NetRAID Assistant.

   Result: The Server Selection dialog box appears.

5. Select the local server, and make sure access mode is set to Full Access. Click OK.

   Result: The NetRAID Assistant window appears.

6. Insert a blank formatted disk.

7. Choose Configuration → Save.

8. Select drive A, type a filename, and click Save to store the configuration.

   Note: The utility does not provide a message when done.

9. Remove the RAID controller configuration backup disk and close the NetRAID Assistant Utility.

10. Shut down and restart the server.

a. From the Start menu, choose Shutdown.

b. Click Restart the computer, and click Yes.

Result: During restart, the following message appears: `Option: Experienced User may press <CTRL><M> for NP NetRAID Express Tools Now.`

11 Press Ctrl+M.

Result: The Management menu appears.

12 Select Object and press Enter.

Result: The Object menu appears.

13 Select Physical Drive and press Enter.

Result: The Physical Drive menu appears, displaying a list of drivers.

14 Select drive A0-1 and press Enter.

Result: The Physical Drive menu appears.

15 Select Fail Drive and press Enter.

16 A prompt appears that asks you to confirm your action. Select Yes and press Enter.

Result: The hard drive is marked FAIL and is offline.

17 Record the SCSI channel and ID of the drive.

Note: Physical drive locations do not correspond to locations shown on the table in NetRAID Express Tools. Refer to the following tables for correct identification of the drives:

NetRAID Express Tools drive locations

SCSI ID	Channel 0	Channel 1
0	A0-0	A0-1
1	A1-0	A1-1
2	A2-0	A2-1

1003t physical drive locations

SCSI ID	Channel 1	Channel 0
2	A2-1	A2-0
1	A1-1	A1-0
0	A0-1	A0-0

18 Repeat steps 14 to 17 for the remaining system packs (A1-1, A2-1).

19 Exit from the NetRAID Express Tools utility by pressing Esc three times.

20 When you are prompted to confirm your action, select Yes and press Enter.

21 Power down the server.

22 Unseat the drives marked FAIL from their slots, but do not remove them.

Note: If you decide to remove the drives, be sure to label them with their SCSI channel and ID, and store them in antistatic bags and suitable foam material.

CAUTION

Risk of data loss

If you label drives incorrectly, you might not be able to recover your system using these drives.

23 Power up the server.

After the procedure

When you are confident that the procedure (upgrade, conversion, or PEP installation) was successful, and that the server is operating properly, you can rebuild the RAID drives (see “Rebuilding the RAID drives on a 1003t” on page 428).

If the procedure is unsuccessful, you can recover the system using the channel 1 drive (see “Recovering an entire system on a 1003t” on page 430).

Performing a RAID backup on a 1003t

Introduction

Full backup with RAID drives is supported for 1003t platforms with

- a NetRAID controller
- RAID 1
- the NetRAID Assistant utility

Before you begin

- Make sure that the NetRAID subsystem is cabled as specified in the maintenance guide for your hardware platform.

  Note: Ensure that the SCSI cable is correctly installed. Reversed cables increase the risk of data loss.
- Back up the NetRAID Controller configuration to a disk.
- Make sure you have a full or database tape backup available.
- Make sure that the Windows NT Repair disk is up to date.
- Make sure that you have a new or blank hard drive for each RAID system pack. If the drive is not new, it must be formatted (see “Formatting drives on a 1003t” on page 348).
- Nortel Networks recommends that you perform a consistency check (see “Performing a consistency check on a 1003t” on page 341).

  Note: A consistency check is not necessary every time you split the RAID drives.

To perform a RAID backup

1. Split the RAID drives, following steps 1 to 21 in “Splitting the RAID drives on a 1003t” on page 342.
2. Remove the hard drives marked FAIL, and label them with their SCSI channel and ID. For detailed instructions, see the maintenance guide for your hardware platform.

CAUTION

Risk of data loss

If you label drives incorrectly, you might not be able to recover your system using these drives.

3. Store the hard drives in antistatic bags and suitable foam material. (Use the original packaging, if it is available.)
4. Make sure that the SCSI IDs are set to 0 on the new or blank formatted hard drives. (If a drive is not new, you must format it. See “Formatting drives on a 1003t” on page 348.)
5. Insert the hard drive. For detailed instructions, see the maintenance guide for your hardware platform.
6. Rebuild the RAID drives, following steps 4 to 8 in “Rebuilding the RAID drives on a 1003t” on page 428.

Formatting drives on a 1003t

Introduction

Use either the NetRAID Express Tools or the NetRAID Assistant procedure to format the drives on a 1003t. The NetRAID Express Tools method requires the server to be offline. The NetRAID Assistant method enables you to keep the server online.

Note: Formatting destroys all the data on the drive. Make sure that you select the correct drive.

To format drives

Using NetRAID Express Tools

1. Shut down the server.
   a. For Windows NT 4.0, from the Start menu, choose Shutdown.
   b. Click Shut down the computer, and then click Yes.
2. Power down the server.
3. Make sure that the SCSI IDs are set to 0 on the hard drives. For detailed instructions, see the maintenance guide for your hardware platform.
4. Insert the drives. For detailed instructions, see the maintenance guide for your hardware platform.
5. Power on the server.

   Result: POST messages from the RAID controller warn you that the system is operating in critical mode (that is, with some drives offline). The following message appears: `Option: Experienced User may press <CTRL><M> for NP NetRAID Express Tools Now.`
6. Press Ctrl+M.

   Result: The Management menu appears.
7. Select Object and press Enter.

   Result: The Object menu appears.

8 Select Physical Drive and press Enter.

Result: A list of drives appears.

9 Select the drive that you want to format. Ensure that you do not select the existing drive that contains your data. Press Enter.

Result: The Physical Drive menu appears.

10 Select Fail Drive.

11 Select Format and press Enter.

Result: The utility formats the drive. It takes approximately 45 minutes to format a 9 Gbyte volume.

Using NetRAID Assistant

1 Shut down the server.

a. For Windows NT 4.0, from the Start menu, choose Shutdown.

b. Click Shut down the computer, and then click Yes.

2 Power down the server.

3 Make sure that the SCSI IDs are set to 0 on the hard drives. For detailed instructions, see the maintenance guide for your hardware platform.

4 Insert the drives. For detailed instructions, see the maintenance guide for your hardware platform.

5 Power on the server.

Result: POST messages from the RAID controller warn you that the system is operating in critical mode (that is, with some drives offline). The following message appears: `Option: Experienced User may press <CTRL><M> for NP NetRAID Express Tools Now.`

6 Log on to Windows NT as Administrator.

7 Start the NetRAID Assistant utility.

Result: The Server Selection dialog box appears.

8 Select the local server, and make sure access mode is set to Full Access.

Result: The NetRAID Assistant window appears.

9 In the Physical Devices list, select the drive that you want to format. Ensure that you do not select the existing drive that contains your data.

10 Select Fail Drive.

11 Choose Physical Drv → Format.

Result: The utility formats the hard drive. It takes approximately 45 minutes to format a 9 Gbyte volume.

Section D: Full backups using a third-party utility

In this section

Overview 352

Preparing for third-party utility backups 353

Overview

Introduction

You can create a full backup so that you are able to restore Symposium Call Center Server to the state when the backup was performed. This type of backup is useful to recover from situations such as a catastrophic failure in the disk sub-system.

To perform a full backup in Symposium Call Center Server Release 4.0 you must use a third-party backup utility. This section describes procedures you must complete before performing the third-party backup.

Nortel Networks recommends that you perform a full backup after the initial Symposium Call Center Server installation and configuration, after a major upgrade to a new release, or after any major hardware configuration changes.

Preparing for third-party utility backups

Introduction

The customer must define a backup and restore process based on the third-party utility used (for example, Windows NT backup). This section describes procedures that must be completed before beginning a full backup using a third-party utility. Refer to your third-party documentation for information on the full backup procedure.

To prepare your server for a full backup

1. Shut down all services using the Shutdown utility found in the Symposium Call Center Server program group.
2. Shut down the database using the Services Manager utility found in the Sybase SQL Server Professional program group.
   - **a.** Select SQL Server in the Services box.
   - **b.** Double-click on the red light.
   - **c.** Select Backup Server in the Services box.
   - **d.** Double-click on the red light.
   - **e.** Exit Services Manager.
3. Use the Services Control panel to make sure the following services are shut down:
   - win32sl
   - Telephony Service
   - TCP/IP NetBIOS Helper
   - SNMP
   - Simple TCPIP Services
   - Server
   - Protected Storage
   - Messenger
   - License Logging Service

To shut down the services, select the service and press Stop. Once complete, press Close on the Services Control Panel.

4 Back up the server. The following options must be selected before starting the full backup:

- verify backup - to ensure the backup was made successfully
- backup local registry - this is a required option, to backup all of the server's configuration details. The third-party backup utility must support registry backups.
- hardware compression - to make sure all of the data on the server can be backed up

For MAS Legacy Hardware, the following drives need to be backed up:

- C: - DOS, Symposium Call Center Server log files. Some files on this drive can be skipped. This should not cause any problems.
- D: - WindowsNT, Symposium Call Center Server, PC Anywhere, Sybase 11 executables, Database
- All drives greater than and including F: - Database drives

For Platform Vendor Independence, the following drives must be backed up:

- C: - Windows NT, SysOp log files
- D: - Symposium Call Center Server, PC Anywhere, Sybase 11 executables
- All drives greater than and including F: - Database drives

To perform the backup

1 Start the backup from the third-party utility.

2 When the backup is complete, restart your server.

Chapter 12

Restoring data

In this chapter

Overview of recovery procedures 356

Section A: Recovery using a tape backup 359

Section B: Recovering a 1000t, 701t, 702t, or 1001t RAID system 409

Section C: Recovering a 1003t RAID system 425

Section D: Recovery using a third-party backup 433

Overview of recovery procedures

Which procedures to use

The following tables outline the types of failures and the procedure you must follow to recover the system.

Systems without RAID controllers

IF you experience the following type of failure	THEN refer to this section
Primary or secondary hard drive fails or File system (NTFS) corruption	Section B: “Recovering a 1000t, 701t, 702t, or 1001t RAID system” on page 409
Database is corrupted	Section A: “Recovery using a tape backup” on page 359

Systems with RAID controllers

IF you experience the following type of failure	THEN refer to this section
Primary or secondary hard drive fails or File system (NTFS) corruption	Section B: “Recovering a 1000t, 701t, 702t, or 1001t RAID system” on page 409 or Section C: “Recovering a 1003t RAID system” on page 425
Database is corrupted	Section A: “Recovery using a tape backup” on page 359

ATTENTION

To recover your server using a full backup created with a third-party utility, see Section D: “Recovery using a third-party backup,” on page 433.

Section A: Recovery using a tape backup

In this section

Overview 360

Restoring the Symposium Call Center Server database 361

Recovering the complete system 365

Overview

Introduction

The procedures in this section provide instructions for recovering a system using a backup tape.

Database recovery

The database recovery procedure provides instructions for recovering from corruption of the Symposium Call Center Server database.

Full system recovery

The full system recovery procedure provides instructions for recovering from one of the following:

- a hardware failure (for example, a hard drive failure)
- file corruption that affects more than the Symposium Call Center Server database

ATTENTION

You cannot simply reinstall the Symposium Call Center Server and then do a database restore. You must recover the system, using one of the methods described in this section.

Restoring the Symposium Call Center Server database

Introduction

Use the Symposium Call Center Server database restore utility to restore the database.

The restore process causes the connection between the client PC and server to be lost, and the services on the server to be shut down. After the restore process is finished, restart the server, and reconnect the client PC.

As the restore progresses, the status information appears in the Status group box.

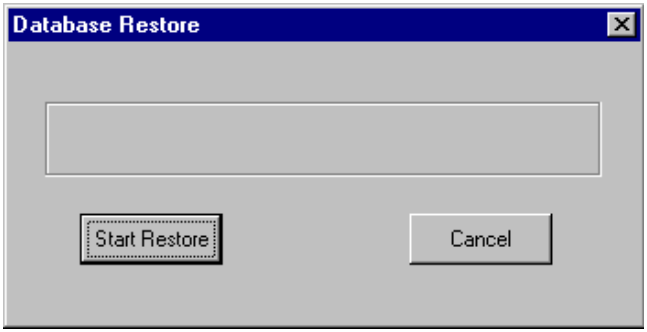
ATTENTION

After a major system failure, you must recover the system using one of the methods described in Section B: “Recovering a 1000t, 701t, 702t, or 1001t RAID system” on page 409. After the system is recovered, you can restore the database using the steps described below.

To restore the Symposium Call Center Server database

1. Log on to Windows NT as NGenSys.
2. Insert the database backup tape.
3. From the Windows Start menu, choose Programs → Symposium Call Center Server → Database Restore.

   Result: The Database Restore window appears.



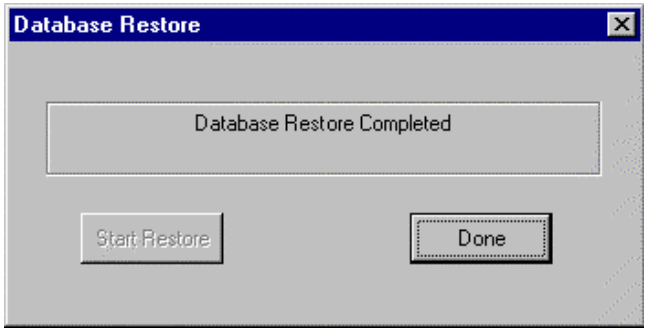
4. Click Start Restore to begin the database restore process.

   Result: The message `Please ensure the database backup tape is in the tape drive` appears.

5. Click OK to continue.

   Note: The database takes one to three hours to restore, depending on the amount of data.

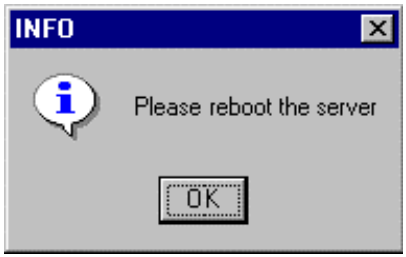
   Result: The following dialog box appears:



A log file is created with the following pathname after the database restore is completed: D:\Nortel\data\backup\RestoreLogs\restore.log.

6 Click Done.

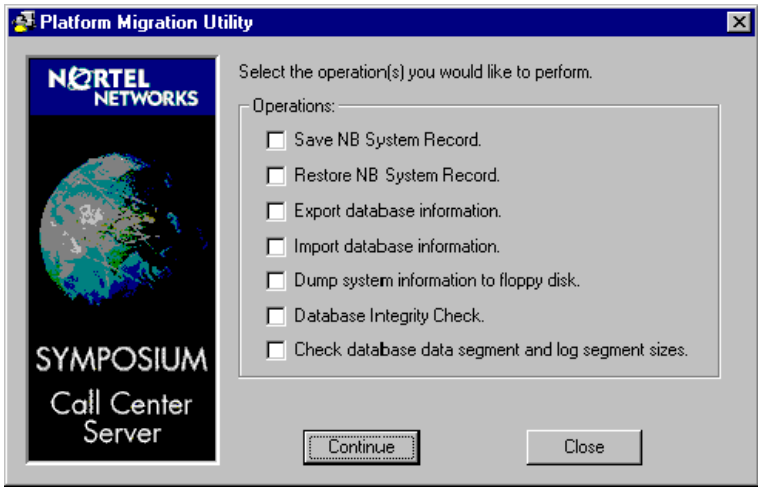
Result: The following dialog box appears:



7 Eject the backup tape from the tape drive, and then click OK to exit the Database Restore utility. Do not restart the server.

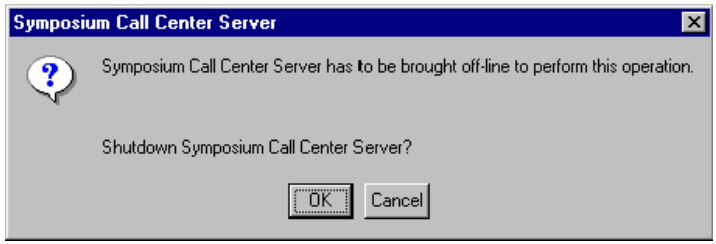
8 From the Windows Start menu, choose Programs → Symposium Call Center Server → Migration.

Result: The Platform Migration Utility dialog box appears.



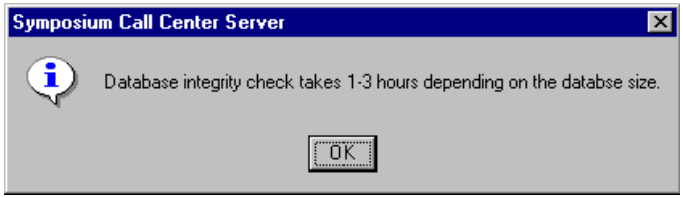
9 Select the Database Integrity Check option. Click Continue.

Result: The following dialog box appears:


Symposium Call Center Server
Symposium Call Center Server has to be brought off-line to perform this operation.
Shutdown Symposium Call Center Server?
OK
Cancel

10 Click OK.

Result: The following dialog box appears:



11 Click OK to start the database integrity check.

Note: Since the database integrity check takes some time to complete, you might not see any active activity on the screen. However, you should notice continuous disk activity. Wait until the following dialog box appears:

Symposium Call Center Server
Database integrity check completed successfully.
Please see C:\DbChk.log for integrity check result.
OK

12 Click OK to exit the utility.

13 Check the log file (C:\DbChk.log) for errors. To do so, open the log file in a text editor (such as NotePad), and search for the text `ERROR` or `MSG`.

14 Restart the server.

Recovering the complete system

Introduction

If you have a current Platform Recovery disk and recent database backup, you can use this recovery method.

Note: Before using this method, check your regional Symposium Call Center Server technical web site for updated *Installation Addendums*. North American customers refer to the web site at www.nortel-sccs.com. European customers refer to the Symposium Call Center Server area on the web site at www.nortelnetworks.com/nic.

Before you begin

During the recovery process, you must install Windows NT and configure the computer name. When you assign the computer name, use the Installed Computer Name of the original server. (The Installed Computer Name might not be the same as the Current Computer Name of the original server.)

To check the Installed computer name

1. On the original server, insert the Platform Recovery Disk into the floppy drive A.
2. From the Windows Start menu, choose Run.
3. Type **notepad A:\MigInfo.txt**, and then click OK to open the MigInfo.txt file.
4. Record the Installed Computer Name and Current Computer Name displayed.

Requirements

Step	✔
Two blank formatted disks	
Installation media for MS-DOS v6.20 (three disks)(MAS platform only)	

Step	✔
Nortel Networks Symposium Call Center Server Release 4.0 Operating System CD Version 1.0, three Windows NT 4.0 Setup Boot disks, and the Certificate of Authenticity containing the Product ID **Note:** If you are using a different version of the CD, refer to your *Distributor Technical Reference* or *Documentation Addendum*.	
Symposium Call Center Server Application CD	
Software Installation and Upgrade Guide for Symposium Call Center Server Release 4.0	
Supplementary CD containing the PEPs and Service Update packs installed on the original server (or downloaded PEP files accessible on the network) **Note:** On the new server, you must install all the PEPs that were installed on the original server.	
Latest database backup tape of the server	
Platform Recovery disk	
Printout of the MigInfo.txt file, located on the Platform Recovery disk This file contains the setup information for the system you are recovering, and is used during installation and configuration of Windows NT and the Symposium Call Center Server.	
Information about the original server ■ partition sizes ■ workgroup name (obtain from your network administrator) ■ RAS static address pool information (obtain from your network administrator) ■ PEP level	
Head-cleaning kit	

Checklist for recovering with a Platform Recovery disk

Description		✔
1	Replace the faulty hard drive if the hard drive is not usable. For instructions, refer to the maintenance guide for your hardware platform.	
2	Partition the primary hard drive. See page 368.	
3	Install MS-DOS. See page 369. (MAS only)	
4	Install Windows NT 4.0 Server. See page 370.	
5	Format the Windows NT partition. See page 371.	
6	Install the Windows NT software. See page 373.	
7	Configure the server for networking. See page 374.	
8	Install the modem and configure RAS. See page 377.	
9	Configure TCP/IP. See page 378.	
10	Complete configuration of Windows NT. See page 379.	
11	Install Windows NT 4.0 Server Service Pack 6A. See page 380.	
12	Format optional hard drives, if applicable. See page 381.	
13	Install the RAID utilities. See page 382.	
14	Install the tape device driver. See page 383.	
15	Check and correct drive letter assignments. See page 384.	
16	Install the Symposium Call Center Server software. See page 387.	
17	Install and configure pcAnywhere version 9.2 on the server (see Chapter 3, “Installing and configuring pcAnywhere”).	
18	Clean the tape drive using the appropriate head-cleaning kit. See page 401.	
19	Restore the database. See page 401.	

To partition the primary drive

ATTENTION

Drives C and D on Disk 0 must be primary partitions.

1. Insert the MS-DOS 6.20 Install Disk 1 into drive A and restart the server.
2. Press F3 twice to exit the Setup program.
3. At the A: prompt, type **fdisk** to start the disk partitioning utility.
4. At the main menu, type **1** to choose Create DOS Partition or Logical DOS Drive, and press Enter.
5. Type **1** to choose Create Primary DOS Partition, and press Enter.
6. At the prompt, `Do you wish to use the maximum available size...`, type **N** and press Enter.
7. At the prompt `Enter partition size...`, use the backspace key to delete the suggested value, type the size of the DOS partition on the original system, and press Enter.

   Note: The partition size must match the size of the partition on the system that was backed up.
8. Press Esc to return to the main menu.
9. Type **2** to choose Set Active Partition and press Enter.
10. Type **1** to make the new partition active.
11. Press Esc to return to the main menu.
12. Press Esc to exit fdisk.

To install MS-DOS 6.2 (MAS platform only)

1 Insert the disk labeled MS-DOS Install Disk 1 into drive A and press any key to restart the computer.

Result: A message indicates that MS-DOS is starting. The MS-DOS 6.20 setup menu appears.

CAUTION

Risk of equipment damage

Do *not* enable the MS-DOS DoubleSpace disk compression feature.

2 Press Enter.

Result: The program prompts you to configure unallocated disk space.

3 Select Do not configure unallocated disk space, and press Enter.

Result: You are prompted with common system settings. Hard disk C is not formatted.

4 Select Format this drive.

Result: The program formats drive C. This takes several minutes. Then the System Settings dialog box appears.

5 Ensure that the date, time, country, and keyboard are configured correctly, and click OK.

Result: The program then prompts you for the path to install DOS.

6 Press Enter to accept the default path, C:\DOS.

Result: The program starts copying files. It prompts you to insert Disk 2.

7 Insert MS-DOS Setup Disk 2, and press Enter.

Result: The program continues copying files. It prompts you to insert Disk 3.

8 Insert MS-DOS Setup Disk 3, and press Enter to finish setup.

Result: The program finishes copying files.

9 When prompted, remove Setup Disk 3 and press Enter.

Result: The program confirms that the operating system was installed.

10 To restart the computer with MS-DOS, press Enter.

Result: The computer boots to a clean MS-DOS installation.

To install the Windows NT 4.0 server operating system

Note: Make sure you have the MigInfo.txt file available when you install and configure Windows NT. Much of the information you need during installation and configuration is available in that file.

1 Insert the Windows NT 4.0 Setup Disk 1 in drive A and power up the computer.

Result: The system boots, disk loads, and prompts for Setup Disk 2.

2 Insert the Windows NT Setup Disk 2 and press Enter.

Result: Setup loads files from Disk 2. The Windows NT Setup screen appears.

3 Press Enter.

Result: The system displays the message `Setup automatically detects floppy disk controllers and standard ESDI/IDE hard disks without user intervention`.

4 Type **S** to skip automatic detection.

Result: The system prompts you to select the mass storage controllers.

5 To install the IDE CD-ROM driver, follow these steps:

a. Type **S** to specify additional SCSI adapters, CD-ROM drivers, or special disk controllers.

Result: A list of controllers appears. Use the up and down arrow keys to view the complete list.

b. Select IDE CD-ROM (ATAPI 1.2)/PCI IDE Controller and press Enter.

6 To install other drivers, such as SCSI or RAID drivers, follow these steps:

ATTENTION

Since the default Windows NT SCSI drivers are not supported, using them might cause system errors.

a. Type **S** to select additional SCSI adapters, CD-ROM drivers, or special disk controllers.

Result: A list of controllers appears. Use the scroll bars to view the complete list.

b. Select Other (Requires disk provided by a hardware manufacturer), and then press Enter.

c. Insert the disk containing the device drivers, and then press Enter.

Example: For a non-1003t RAID system, you insert disk number NTRH8036.

Note: Make sure you choose the correct drivers for your hardware platform.

d. Select the mass storage device that you want, and then press Enter.

Example: For a non-1003t RAID system, select Mylex DAC 960.

7 If necessary, repeat step 6 to install additional SCSI or RAID drivers.

8 When prompted, remove the driver disk from drive A and insert Windows NT Setup Disk 3. Press Enter.

Result: The system loads files and prompts you to insert the Windows NT Server CD into the CD-ROM drive.

9 Insert the Symposium Call Center Server Platform Support CD, and press Enter to install Windows NT.

Result: The licensing agreement appears.

10 Scroll down to the end of the text with the Page Down key. Press F8 to accept the licensing agreement.

Result: A list of installed hardware components appears.

To format the Windows NT partition

Note: Use drive D on MAS platforms and drive C on PVI platforms.

1 Check the list of installed hardware components to verify that the devices match your computer. Highlight The above list matches my computer, and press Enter.

Result: The Windows NT disk partitioning screen appears.

2 To format the disk, follow these steps:

a. Highlight “Unpartitioned space” on the primary hard disk (Disk 0).

b. Type **C** to create a partition.

c. Type the size of the D partition (for MAS) or C partition (for PVI) to be created. It must be equal to the size of the D (MAS) or C (PVI) partition on the original system.

d. Highlight the partition you just created, and press Enter.

Result: The program prompts you for the format type, NTFS or FAT.

3 Select Format the partition using the NTFS file system, and press Enter.

Result: Setup formats the new partition and prompts for the installation location.

4 Press Enter to select the default directory for installing Windows NT (\WINNT).

Result: The system prompts you to perform a comprehensive disk check.

5 Press Enter.

Result: The program examines the hard drives. It prompts you to insert the manufacturer-supplied SCSI or RAID controller driver disk into drive A to copy the driver(s) to the hard drive.

6 Remove the Windows NT 4.0 Setup Disk from drive A.

7 Insert the manufacturer-supplied SCSI or RAID controller driver disk. Press Enter.

Result: Setup copies files to the hard drive. The system prompts you to restart the computer.

8 Remove the SCSI driver disk from drive A and the CD from the CD-ROM drive. Press Enter.

Result: The system often reboots more than once before launching the Windows NT graphical interface. The system prompts you to insert the CD-ROM.

To install the Windows NT software

1 Insert the Symposium Call Center Server Operating System CD in the CD-ROM drive.

Note: The program might prompt you to click OK for the system to locate files on the CD. If it does, click OK.

Result: The program copies files to the system. The next three parts of setup appear on the screen.

2 Click Next to continue.

Result: The program prompts you to enter the name and company name.

3 Enter the data requested (name and company name), and then click Next.

Result: The program prompts you to enter the CD Key.

4 Enter the CD key from your Certificate of Authenticity, and then click Next.

Result: The program prompts you to select the Windows NT 4.0 licensing mode.

5 Select Per server and specify 5 as the number of concurrent connections. Click Next.

Result: The program prompts you to enter the computer name.

ATTENTION

Make sure that the name matches the Installed Computer Name of the server that was backed up.

6 Enter the computer name and click Next.

Result: The program prompts you to select the server's role or server type.

ATTENTION

If you do not choose Stand-Alone sever, you must repeat the procedure from the beginning.

7 Ensure that Stand-Alone Server is selected and click Next.

Result: The program prompts you to enter the password for the Administrator account.

Note: Passwords are case-sensitive. Ensure that the Caps Lock key on the keyboard is not on.

8 Enter the Administrator account password and confirm it. Click Next.

Result: The program prompts you to create an Emergency Repair Disk.

9 Ensure that No, Do not create an emergency repair disk is selected. Click Next.

Result: The program prompts you to select the optional Windows components to be installed.

10 To install the default accessories for Windows NT, click Next.

Result: The program prompts you to begin the setup of Windows NT Networking.

11 To install Windows NT Networking, click Next.

Result: The program prompts you to select how Windows NT participates on the network.

To configure the server for network use

1 Click This computer will participate on a network, and ensure that Wired to the network and Remote access to the network are checked. Click Next.

Result: The system prompts you to install the Internet Information Server.

2 Clear the Install Microsoft Internet Information server check box. Click Next.

Result: The system prompts you to install the network card drivers.

3 Configure the ELAN by following these steps:

a. Click Select from List.

Result: The system prompts you to choose a network adapter from a list.

b. Click Have Disk.

Result: The system prompts you to insert the network card driver disk for the ELAN card in drive A.

c. Insert the ELAN network card driver disk in drive A and click OK.

Note: If the path is not A, you must specify the path. For example, some drivers reside in A:\winnt\.

Result: The system prompts you to select the appropriate network card driver from a list.

d. Click the network card driver that appropriately describes the installed network adapter. Click OK.

Result: The Network Adapter setup screen appears. The driver you loaded from the disk should be listed and checked.

4 Configure the CLAN by following these steps:

a. Click Select from List.

Result: The system prompts you to choose a network adapter from a list.

b. Click Have Disk.

Result: The system prompts you to insert the network card driver disk for the CLAN card in drive A.

c. Insert the CLAN network card driver disk in drive A and click OK.

Note: If the path is not A, you must specify the path. For example, some drivers reside in A:\winnt\.

Result: The system prompts you to select the appropriate network card driver from a list.

d. Click the network card driver that appropriately describes the installed network adapter, and click OK.

Result: The Network Adapter setup screen appears. The driver you loaded from the disk should be listed and checked.

Note: Ensure that both the ELAN card and the CLAN card are listed and checked.

5 Click Next to continue.

Result: The system prompts you to select the network protocols to install.

6 Ensure that the check boxes are in the following state:

- TCP/IP Protocol — checked
- NetBEUI Protocol — cleared
- NWLink IPX/SPX Compatible Transport — cleared

7 Click Next to continue.

Result: The system prompts you to select the network services to be installed.

8 To install SNMP, follow these steps:

a. From the Network Services screen, click Select from List.

Result: A list of network services appears.

b. Scroll to SNMP Service and click OK.

Result: The Network Services Installation screen appears.

9 To install Microsoft TCP/IP Printing, follow these steps:

a. Click Select from List.

Result: A list of Network Services appears.

b. Scroll to Microsoft TCP/IP Printing and click OK.

Result: The Network Services Installation screen appears.

10 If Remote Access Service is not installed, install it by following these steps:

a. Click Select from List.

Result: A list of Network Services appears.

b. Scroll to Remote Access Service and click OK.

Result: The Network Services Installation screen appears.

11 Click Next to continue.

Result: The system prompts you to confirm the installation of network components.

12 To install the selected networking components, click Next.

Result: The files are copied to the system.

Note: The program might prompt you to test the card. Follow the instructions on the screen to perform the test. If the message `A network card of this type is already installed in the system, do you want to continue`? appears, click OK. The message appears when both the ELAN and CLAN cards are of the same make/model/ manufacturer. Click OK to complete the tests. Click OK to continue with the installation process.

13 When the TCP/IP Settings dialog box appears, for Use DHCP to configure the Network, click NO.

Result: The Remote Access Setup screen displays the following message: `There are no RAS capable devices to Add. Do you want RAS setup to invoke the Modem Installer to enable you to add a modem`?

To install the modem and configure RAS

1. To invoke the Modem Installer, click Yes.

   Result: The Install New Modem screen appears.

2. Check the Don't detect my modem, I will select it from a list box. Click Next.

   Result: Manufacturers and models appear in the Install New Modem screen.

3. Select the appropriate manufacturer and then select the model.

   ATTENTION If you have the manufacturer's installation disk, then click Have Disk and follow the instructions on the screen.

4. If your modem's manufacturer and model are not listed, and if you do not have the manufacturer's installation disk, select Standard Modem types as the Manufacturer and Standard 28800 bps Modem as the Model.

5. Click Next on the Install New Modem screen showing manufacturers and models.

   Result: The port selection screen appears.

6. Click Selected ports, select COM1, and then click Next.

   Result: The Location Information screen appears.

7. Select the appropriate Country, Area Code, and dialing information, and click Next.

   Result: The message `Your modem has been setup successfully` appears.

   Note: The information entered at this step can be changed later by double-clicking the Modems icon in Control Panel, selecting this modem, and then clicking Properties.

8. To complete the installation, click Finish.

   Result: The Add RAS device screen appears.

9. Click OK.

   Result: The screen closes and the RAS screen appears.

10. Click Configure.

    Result: The Configure Port usage screen appears.

11 Select Dial Out and Receive Calls, and click OK.

Result: The RAS screen appears.

12 Click Network.

Result: The Network configuration screen appears.

13 For Dial out Protocols, check TCP/IP. For Server Settings, check TCP/IP.

14 At the Network Configuration screen, click Configure beside TCP/IP in Server Settings.

Result: The RAS TCP/IP Configuration screen appears.

15 Under Allow remote TCP/IP clients to access, select This computer only.

16 Select Use static address pool. Enter Begin and End addresses, From and To addresses, and excluded ranges, if any.

17 To complete the configuration, click OK.

Result: The Network Configuration screen appears.

18 To close the Network Configuration screen, click OK.

Result: The RAS screen appears.

19 Click Continue.

Result: The system prompts you to configure the SNMP service.

To configure TCP/IP

1 To accept the default SNMP configuration, click OK.

Note: SNMP is installed only for performance monitor counters.

Result: Files are copied to the system. The system prompts you to enter the TCP/IP parameters.

2 Use the information in the MigInfo.txt file to complete the IP and WINS tabs for the first network card.

3 Select the second network card, and repeat step 2.

Result: The Windows NT Server Setup screen appears, showing bindings.

4 To start the network, click Next.

Result: The program prompts for domain and workgroup settings.

5 Enter the workgroup name of the server and click Next.

ATTENTION The computer must not belong to a Windows NT domain.

Result: Windows NT prepares to complete setup.

6 Click Finish to proceed.

Result: The system prompts you for date/time configuration settings.

To complete configuration of Windows NT

1 Enter the correct date, time, and time zone. Ensure that Automatically adjust clock for daylight saving changes is checked.

2 Click Close.

Result: Windows NT Setup detects the installed display adapter.

3 To accept the display adapter Windows NT has detected, click OK.

Result: The system prompts you to configure the display adapter.

4 Ensure that the following values have been selected:

- Color Palette — 16 Colors
- Desktop Area — 800x600
- Font Size — Small Fonts
- Refresh Frequency — 60 Hertz (or default)

Note: You must test these settings before you can proceed in the Windows NT Setup.

5 To start the test, click Test.

Result: The system prompts you to continue with the test.

6 To proceed with the display settings test, click OK.

Result: A test screen appears. After five seconds, the system prompts you to select whether you saw the bitmap properly.

7 Click Yes.

Result: The system prompts you to save the display settings.

8 To save the tested display settings, click OK.

Result: The display settings configuration screen appears.

9 To finalize the display settings and continue with Windows NT setup, click OK.

Result: Files are copied to the system. Windows NT Setup sets security on system files, and saves the system configuration.

10 Remove the CD from the CD-ROM drive, and the disk from drive A.

11 To complete Setup, click Restart Computer.

Result: The Windows NT Server restarts. The Windows NT logon box appears.

To install Windows NT 4.0 Server Service Pack 6A

1 Log on to Windows NT as Administrator.

2 Insert the Symposium Call Center Server Release 4.0 Platform Support CD Version 1.0 into the CD-ROM drive. If you are installing another Service Pack, insert the CD that contains the Service Pack.

3 If the Windows NT Setup splash screen appears, click Close to close the screen.

4 From the Start menu, choose Programs → Windows NT Explorer.

Result: The Windows NT Explorer screen appears.

5 Click the plus sign (+) next to the CD-ROM drive to display its subdirectories.

6 Select the directory containing the Service Pack (E:\Service Pack 6A\US-40bit, where E is your CD-ROM drive).

7 Run Sp6ai386.exe and follow the screen instructions.

8 When the message `Welcome to Service Pack 6 Setup` appears, select Accept the Licence Agreement, and then click Install to install the Service Pack on your computer.

9 When the message `Windows NT 4.0 Service Pack installation is complete` appears, select Restart to restart the computer.

10 The computer restarts.

To format optional hard drives (Drives 1 and 2 in the Disk Administrator)

CAUTION

Risk of data loss

Drives C and D must be two partitions of the primary hard drive (drive 0 on MAS platforms). Drive C must be a DOS partition, and drive D must contain Windows NT. Usually, drive E is the CD-ROM drive.

1. Log on to Windows NT as Administrator.
2. From the Windows Start menu, choose Programs → Administrative Tools → Disk Administrator.

   Result: The Disk Administrator window appears. This window shows partition and formatting information for all installed drives. If drives are not partitioned, continue with the following steps:
3. Select the unpartitioned drive (for example, Disk 1).
4. Click the right mouse button, and choose Create Extended.
5. Click OK.

   Note: Do not specify a partition size. (Use the default size.)
6. Click the newly created partition.
7. Click the right mouse button and choose Create a logical drive.
8. Enter the partition size. The partition size must be within 2 percent of the original partition size.
9. Click OK.
10. Choose File → Commit Changes Now.
11. Click Yes to confirm.
12. Choose Tools → Format, and format the drive as NTFS.
13. Repeat steps 3 to 12 for all remaining newly partitioned disks.

    Note: Assign drive letters F, G, H, and so on, depending on the requirements of your system.

14 Exit from Disk Administrator by choosing Partition → Exit.

Note: In the Disk Administrator, extended partitions (logical drives) are light blue. Primary partitions are dark blue.

To install the RAID utilities (Nortel Networks supplied platforms only)

On a 701t, 702t, 1000t, or 1001t

1 Insert the dac960 driver disk.

2 Open a Command Prompt window (from the Windows Start menu, choose Programs → Command Prompt).

3 Copy files from the NT directory on the disk to your WINNT folder by typing the following command in the Command window, and then pressing Enter:

copy A:\nt*.* D:\winnt\system

4 Type the following command and press Enter:

srvccfg dacmon dac960Monitor D:\winnt\system32\dacmon.exe

5 Start the dac960 Monitor utility by entering the following command and pressing Enter:

net start dacmon

Result: The dac960 Monitor opens and runs minimized on your Windows Taskbar.

On a 1003t

1 Create the utility disk by following these steps:

a. Insert the HP NetServer Navigator CD.

Result: The HP Navigator Main Menu opens.

b. Choose NetServer Utilities.

c. Choose More NetServer Utilities.

d. Choose Diskette Library.

e. Choose NetRAID Assistant for Windows NT and Windows 95 and follow the instructions displayed on the screen.

f. Remove the HP NetServer Navigator CD and click Exit to restart the server PC.

2 Log on to Windows NT as Administrator.

3 Insert the utility disk you created in step 1.

4 From the Windows Start menu, choose Run.

5 Click Browse, and then select Setup.exe from the root directory on the disk.

6 Click OK to run and follow the instructions that appear on the screen.

To install the tape device driver (Nortel Networks supplied platforms only)

1 Power up the server or press Ctrl+Alt+Delete.

Result: The Windows NT logon box appears.

2 Log on as the Administrator.

3 Click Start → Settings → Control Panel.

Result: The Control Panel appears.

4 Double-click the Tape Devices icon.

Result: The Tape Devices control panel appears. Windows NT attempts to detect the installed tape drive. The list of available tape drive device drivers appears.

5 If the driver that you want appears in the list, follow these steps:

a. Select it and click OK.

b. Insert the Symposium Call Center Server Operating System CD in the CD-ROM drive and click OK.

Result: The driver files are copied to the system. The Tape Devices Control Panel appears.

c. Skip to step 7.

6 If the driver that you want does not appear in the list, follow these steps:

   a. Insert the Symposium Call Center Server Operating System CD or the manufacturer's supplied installation disk containing the driver.

   b. Browse to the path containing the driver, and click OK.

   Result: The system prompts you to select a device driver from the displayed list.

   c. Select the most appropriate driver and click OK.

   Result: The system prompts you to install the selected driver.

   d. To install the selected driver, click OK.

   Result: The system prompts you to insert the Windows NT CD-ROM.

7 To close the control panel and save the changes, click OK.

Result: The Windows NT Control Panel appears.

Checking and correcting the drive letter assignments

Use this procedure if the drive letter assignments do not match the original assignments on the server.

To check the drive letter assignment

1 From the Windows Start menu, choose Programs → Administrative Tools → Disk Administrator.

2 If the Disk Administrator has never been run before, it must update the system configuration. Click OK to let it do so.

3 For any new disks in the system, the Disk Administrator warns you that there is no signature on the disk. Click OK to allow the signature to be written to disk. You must repeat this step for each new disk in the system.

4 Check whether the hard drives have the same drive letter assignments as before.

5 If the drive letter assignments match, exit the Disk Administrator by selecting Partition → Exit from the Disk Administrator window.

6 If the drive letter assignments do *not* match, use the following procedure to reassign the drive letters on the new server to the drive letter assignments of the original server.

To change the drive letter assignment

Note: Disk Administrator does not let you reassign a hard drive to a drive letter that is currently in use by another drive. You must first assign each hard drive to a temporary drive letter and restart the server. Then you can reset the drive letters to the correct order.

1 Assign the CD-ROM drive to the last available drive letter as follows:

a. From the Disk Administrator window, choose Tools → Assign CD-ROM Drive Letters.

b. In the CD-ROM Drive Letters dialog box, change the drive letter to the last available letter, and then click Change.

c. In the confirmation dialog box, confirm that the drive letter should be changed immediately by clicking Yes.

2 For each hard drive partition (excluding the C: partition), change the drive letter to the last available drive letter:

a. Start with the second partition on drive 0, and click the partition to select it.

b. From the Disk Administrator window, choose Tools → Drive Letter.

c. In the Assign Drive Letter dialog box, change the drive letter to the last available drive letter, and then click OK. The Disk Administrator warns you that the drive cannot be locked for exclusive use (so the drive letter cannot be changed immediately).

d. Click OK to continue.

e. In the confirmation dialog box, click Yes to change the drive letter when the system is next restarted.

f. Repeat this step for each remaining hard drive partition in the system.

Note: When you change the drive letters on the remaining partitions, you are informed that the drive letters can be changed immediately (click Yes to do so). This is because the partitions are not the primary partition (the one with the operating system installed on it).

3 From the Disk Administrator window, choose Partition → Commit Changes Now to save the drive letter assignment.

Result: A message appears, warning you that you should update the emergency repair disk.

4 Click OK to continue.

Result: The system alerts you that the server must now be restarted to allow the drive letters to be changed.

5 Click OK to shut down and restart the server.

6 After the server restarts, log on to Windows NT as the Administrator. After you log on, a message appears in the System dialog box.

7 Click Cancel to exit.

8 Assign the CD-ROM drive to the correct drive letter:

a. From the Disk Administrator window, choose Tools → Assign CD-ROM Drive Letters.

b. In the CD-ROM Drive Letters dialog box, change the drive letter to the correct letter, and then click Change.

c. In the confirmation dialog box, confirm that the drive letter should be changed immediately by clicking Yes.

9 For each hard drive partition (excluding the C: partition), change the drive letter to the correct drive letter:

a. Start with the extended partition on drive 0, and click the partition to select it.

b. From the Disk Administrator window, choose Tools → Drive Letter.

c. In the Assign Drive Letter dialog box, change the drive letter to the correct drive letter, and then click OK. The Disk Administrator warns you that the drive cannot be locked for exclusive use (so the drive letter cannot be changed immediately).

d. Click OK to continue.

e. In the confirmation dialog box, click Yes to change the drive letter when the system is next restarted.

f. Repeat this step for each remaining hard drive partition in the system.

Note: When you change the drive letters on the remaining partitions, you are informed that the drive letters can be changed immediately (click Yes to do so). This is because the partitions are not the primary partition (the one with the operating system installed on it).

10 From the Disk Administrator window, choose Partition → Commit Changes Now to save the drive letter assignment.

Result: A message appears warning you that you should update the emergency repair disk.

11 Click OK to continue.

Result: The system alerts you that the server must now be restarted to allow the drive letters to be changed.

12 Click OK to shut down and restart the server.

13 After the server restarts, log on to Windows NT as Administrator.

Installing and configuring pcAnywhere version 9.2

Install and configure the pcAnywhere software, following the instructions in Chapter 3, "Installing and configuring pcAnywhere."

To install the Symposium Call Center Server software

You must install the Symposium Call Center Server software version and PEPs and Service Update packs originally installed on the server.

1 Log on to Windows NT as Administrator.

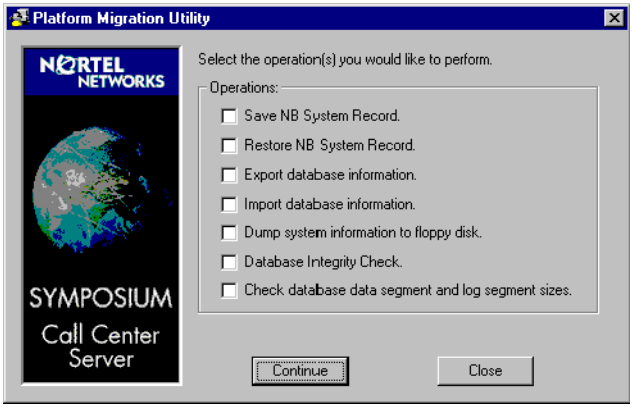
2 Insert the Platform Recovery Disk into drive A of the new server.

3 Open a Command window (from the Start menu, choose Programs → Command Prompt).

4 Type **A:** and press Enter.

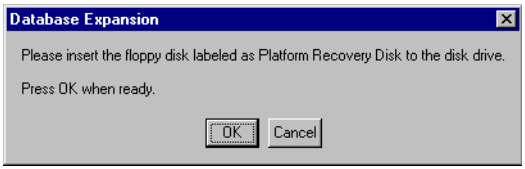
5 Type **sysrecres.exe** and press Enter.

Result: After several minutes, the Platform Migration Utility dialog box appears.



6 Select Import database information from the selection dialog box. Click Continue.

Result: The following dialog box appears:


Database Expansion
Please insert the floppy disk labeled as Platform Recovery Disk to the disk drive.
Press OK when ready.
OK
Cancel

7 Make sure the Platform Recovery disk is in drive A and that it is not write-protected. Click OK to continue.

Result: The database information is imported to the new server.

ATTENTION

If you see the message `Please eject the floppy disk from the drives and start the Symposium Call Center Server installation`, click OK, and then proceed with steps 8 to 19.

If you see the message `This platform cannot support platform migration. There is not enough disk space`, click OK, proceed with steps 8 and 9, and then follow the procedure "To adjust the swap file (Nortel Networks supplied platforms only)" on page 393. You will be asked to perform steps 1 to 19 in this procedure ("To install the Symposium Call Center Server software") after you complete the procedure "To adjust the swap file (Nortel Networks supplied platforms only)" on page 393.

8 Remove the disk from drive A and click OK.

Result: The sysrecres.exe utility is terminated.

CAUTION

Risk of database restoration error

Import the original server database configuration before installing the Symposium Call Center Server software.

9 Close the Command window.

ATTENTION

If you saw the message in step 7 `This platform cannot support platform migration. There is not enough disk space`, follow the procedure "To adjust the swap file (Nortel Networks supplied platforms only)" on page 393 now. You will be asked to perform steps 1 to 19 after you complete the procedure "To adjust the swap file (Nortel Networks supplied platforms only)" on page 393.

10 Install the DMI (see “To install DMI” on page 75).

Note: During the entire installation process, you must use the same setup data you collected from the original server. See the MigInfo.txt file on the Platform Recovery disk for server details.

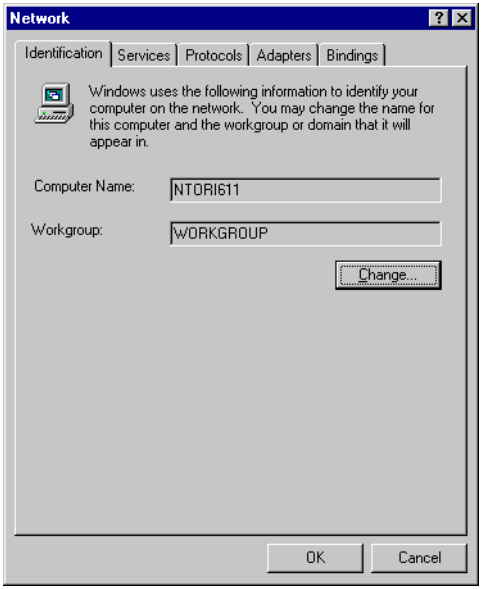
11 Install the MAS server software (see “To install the Symposium Call Center Server software” on page 77).

Note: If the original server is a Release 3.0 server that was converted from Release 1.x, and if the Installed Computer Name of the original server is less than six characters, continue with the following step after the MAS server software installation. Otherwise, skip to step 13.

12 If the original server is a Release 3.0 server that was converted from Release 1.x, and if the Installed Computer Name of the original server is less than six characters, change the computer name after the MAS server software installation by following these steps:

a. In the Control Panel window, double-click Network.

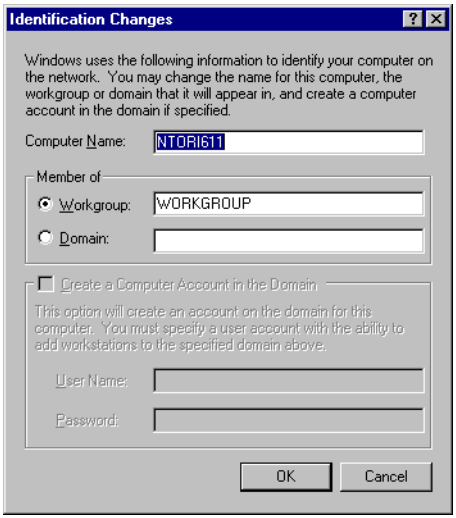
Result: The Network property sheet appears.



b. Record the displayed Computer Name and provide a copy to the system administrator.

c. Click Change.

Result: The Identification Changes dialog box appears.


Identification Changes
Windows uses the following information to identify your computer on the network. You may change the name for this computer, the workgroup or domain that it will appear in, and create a computer account in the domain if specified.
Computer Name:
NTORI611
Member of
Workgroup:
WORKGROUP
Domain:
Create a Computer Account in the Domain
This option will create an account on the domain for this computer. You must specify a user account with the ability to add workstations to the specified domain above.
User Name:
Password:
OK
Cancel

d. Enter the new computer name (that is, the Current Computer Name of the original server). The computer name must be a single word without spaces, 6–15 characters long. Letters, numbers, a hyphen, and a dash are allowed.

e. Click OK.

Result: A message appears, indicating that the name change was successful.

f. Click OK.

g. The Network property sheet appears.

h. Click OK.

Result: The system prompts you to restart.

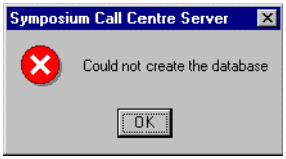
i. Click OK to restart the PC.

Note: If a Dr. Watson error for bcksrvr.exe appears after you restart the PC, click OK to ignore it. This error occurs because the sql.ini file is not up-to-date. This file will be updated during the Symposium Call Center Server installation, and you will not see the error after the installation is completed.

13 Install the Symposium Call Center Server software (see “To install the Symposium Call Center Server software” on page 77).

ATTENTION

If you see the message `This platform cannot support platform migration. There is not enough disk space,` click OK. If the following two error messages appear, click OK to abort the restore procedure. Then check whether the swap file on drive D is reduced to 32 Mbytes. If it is not reduced to 32 Mbytes, go to the procedure “To adjust the swap file (Nortel Networks supplied platforms only)” on page 393 now. If it is reduced to 32 Mbytes already, contact your Nortel Networks customer support representative.



Notes:

- It is very important that you install the new server with the same Symposium Call Center Server software version as the original server.
- You do not need to configure the new server in Configuration Mode during installation of the Symposium Call Center Server software.
- If you are installing the DMS/MSL-100 version of Symposium Call Center Server, you do not need to connect the feature key adapter (dongle) to the LPT1 parallel port of the new server during installation.

14 After installation of the Symposium Call Center Server software, restart the new server.

15 Log on to Windows NT as NGenSys.

16 If you reduced the swap file to 32 Mbytes and the swap file was on drive D on the original server, follow the procedure "To move the swap file from drive D for Windows NT 4.0" on page 398 (MAS only; on a PVI, the swap file remains on the c: drive). This moves the swap file to the next available drive, as drive D would not have sufficient free drive space if the swap file was extended to the required RAM size +12 Mbytes.

17 If the swap file was on a drive other than D and the new server has the same-size drive D partition as the original server, follow the procedure "To move the swap file from drive D for Windows NT 4.0" on page 398.

18 Apply the same Performance Enhancement Packages (PEP) level and latest version of Service Updates to the new server as in the original server.

Note: It is very important that the new server be installed with the platform migration support PEP and the minimum backup and restore PEP level for the corresponding version. PEPs are available on your regional Symposium Call Center Server PEP web site.

19 With the Symposium Call Center Server software successfully installed, continue with "To restore the database" on page 401.

To adjust the swap file (Nortel Networks supplied platforms only)

If the physical disk space on drive D cannot accommodate the old database size, an error message appears stating `This platform cannot support platform migration. There is not enough disk space`.

- If this message appears when the database information is being imported (steps 1 to 7 in "To install the Symposium Call Center Server software" section), skip the first nine steps and perform steps 10 and 11 as follows.
- If this message appears during installation of the Symposium Call Center Server software (step 13 in "To install the Symposium Call Center Server software" on page 387), proceed with steps 1 to 11 as follows.

1 Click OK to abort the restore procedure.

2 Check the log file D:\Nortel\iccm\dbinst\sysmig.txt to determine how much more space is required.

3 If the log file indicates that the required disk space is greater than 268 Mbytes, then the new server does not have sufficient disk space on drive D.

For assistance, contact your Nortel Networks customer support representative.

4 If the required disk space is less than 268 Mbytes, clean up the Symposium Call Center Server installation by running uninstall. From the Windows Start menu, choose Programs → Symposium Call Center Server → Uninstall.

5 Click Select All to uninstall all the components for both MAS and Symposium Call Center Server.

6 Follow the instructions on the screen to complete the uninstall process.

7 When prompted to restart the system, click No.

8 Run uninstall one more time to remove DMI. From the Windows Start menu, choose Programs → Symposium Call Center Server → Uninstall. Follow the instructions on the screen.

9 When prompted to restart the system, click OK.

10 Once the system has restarted, reduce the swap file size on drive D, setting both minimum and maximum values to 32 Mbytes using the procedure “To reduce the swap file size on drive D” on page 395.

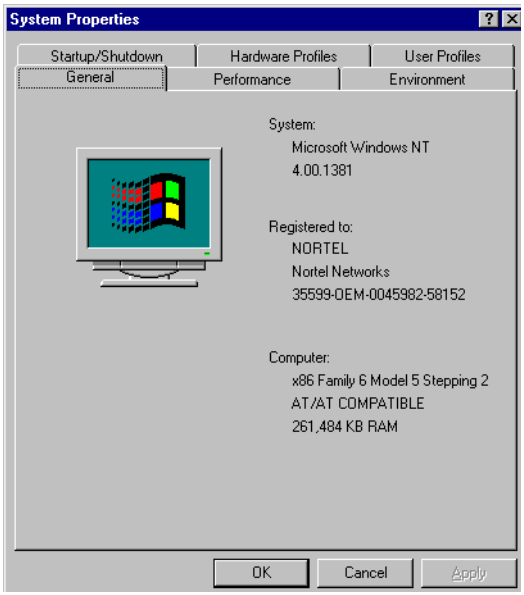
11 Perform steps 1 to 19 in the procedure “To install the Symposium Call Center Server software” on page 387. If you do not see the message `The database will take between 1 to 3 hours to create...`, contact your Nortel Networks customer support representative.

To reduce the swap file size on drive D

Use this procedure only if instructed from the procedure “To adjust the swap file (Nortel Networks supplied platforms only)” on page 393.

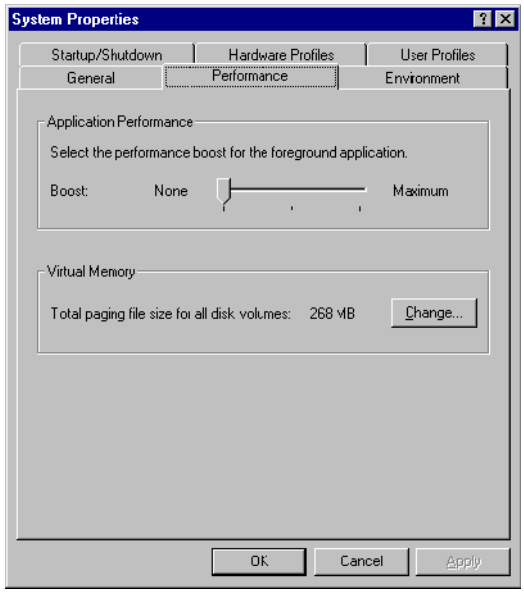
1 From the Windows Start menu, choose Settings → Control Panel, and then double-click the System icon.

Result: The System Properties property sheet appears.



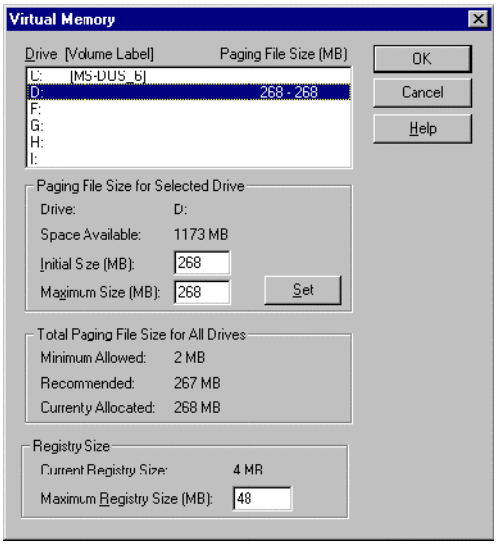
2 Click the Performance tab.

Result: The Performance property page appears.



3 Click Change in the Virtual memory section.

Result: The Virtual Memory dialog box appears.



4 Highlight drive D.

5 Type **32** for both Initial Size (MB) and Maximum Size (MB).

6 Click Set and accept any warnings presented.

7 Click OK on the Virtual Memory dialog box.

8 Click Close on the System Properties property sheet.

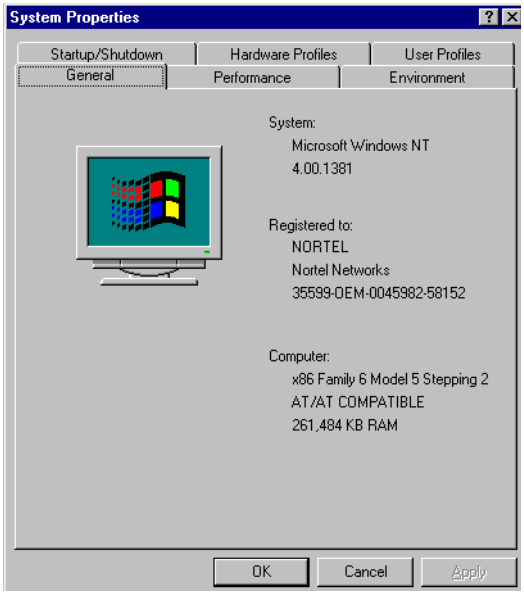
9 Restart the server when prompted.

To move the swap file from drive D for Windows NT 4.0

Use this procedure only if instructed from the procedure “To adjust the swap file (Nortel Networks supplied platforms only)” on page 393 or “To install the Symposium Call Center Server software” on page 387.

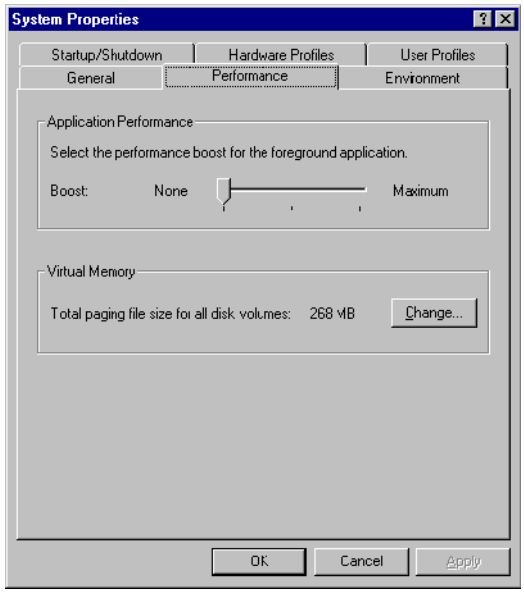
1 From the Windows Start menu, choose Settings → Control Panel, and then double-click the System icon.

Result: The System Properties property sheet appears.



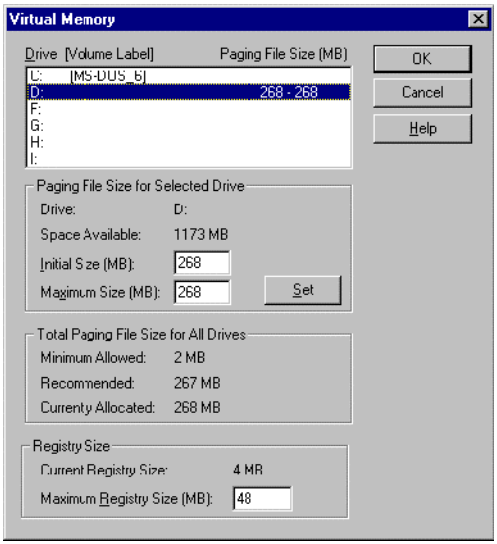
2 Click the Performance tab.

Result: The Performance property page appears.



3 Click Change in the Virtual memory section.

Result: The Virtual Memory dialog box appears.



4 Highlight drive F or the first drive letter that appears after drive D.

5 Ensure that there are at least 288 Mbytes of available space.

6 If there is not enough available space, select the next available drive and repeat steps 4 and 5. If you check all drives and none have 288 Mbytes of available space, contact your Nortel Networks customer support representative for assistance.

7 Highlight drive D to display the existing swap file Initial Size (MB) and Maximum Size (MB).

8 Type **0** for both Initial Size (MB) and Maximum Size (MB).

9 Click Set and accept any warnings presented.

10 Select the drive identified in steps 4 to 6.

11 Type **268** for both Initial Size (MB) and Maximum Size (MB), and click Set.

12 Click OK to apply the changes.

13 Click Close in the System Properties property sheet.

Result: The system indicates that a restart is required.

14 Click Yes to restart the system now.

Cleaning the tape drive

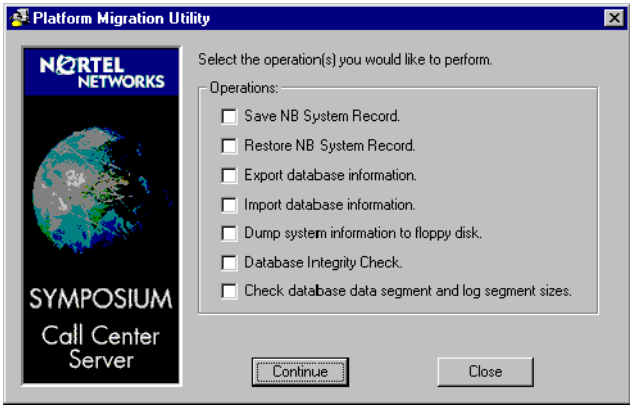
Before you restore any data from a backup tape, clean the tape drive using the appropriate head-cleaning tape. Follow the instructions provided with the head-cleaning tape.

To restore the database

The final part of the recovery procedure involves restoring the database backup. You do not need to connect the new server to the network, the Meridian 1 or the DMS/MSL-100 switch.

1 From the Windows Start menu, choose Programs → Symposium Call Center Server → Migration.

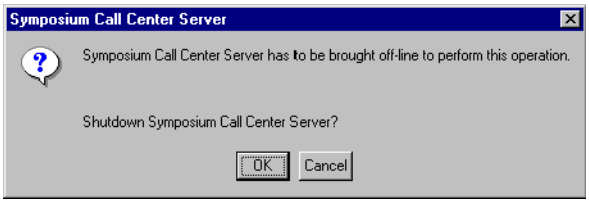
Result: The Platform Migration Utility dialog box appears.



2 Save the NBSystemRecord by following these steps:

a. Choose the Save NB System Record option. Click Continue.

Result: The following dialog box appears:


Symposium Call Center Server
Symposium Call Center Server has to be brought off-line to perform this operation.
Shutdown Symposium Call Center Server?
OK
Cancel

b. Click OK to shut down Symposium Call Center Server.

Result: When the Symposium Call Center Server shuts down, the following dialog box appears:

Save NBSystemRecord
Please insert a blank pre-formatted floppy disk to the disk drive for NBSystemRecord.
Press OK when ready.
OK
Cancel

c. Insert a blank preformatted disk into the floppy disk drive, and click OK to continue after the disk is inserted.

Result: The following dialog box appears:

Symposium Call Center Server
System Record was saved successfully.
Please eject the floppy disk and label it as NBSystemRecord Backup.
OK

d. Eject the disk and label it as instructed. Click OK to terminate the utility (the utility closes automatically after you click OK). Set aside the NBSystemRecord backup disk for step 9.

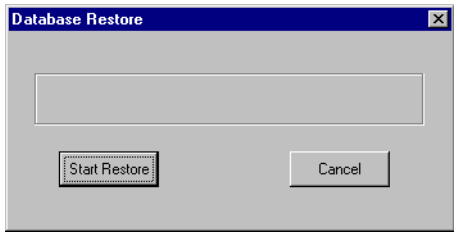
3 Insert the database backup tape from the original server into the tape drive of the new server.

ATTENTION

The new platform must have a tape drive and driver software compatible with the original server. The new platform must be installed with the minimal backup and restore PEP level before you can proceed to the next step. The computer name of the new server must be the same as that of the original server.

4 On the new server, from the Windows Start menu, choose Programs → Symposium Call Center Server → Database Restore to restore the original server database to the new server.

Result: The Database Restore window appears.

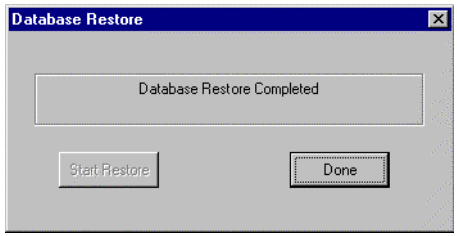


5 Click Start Restore to begin the database restore process.

Result: The message `Please ensure the database backup tape is in the tape drive` appears.

6 Click OK to continue.

Result: The database takes one to three hours to restore, depending on the amount of data. The following dialog box appears:



Note: A log file is created with the following pathname after the database restore is completed:
D:\Nortel\data\backup\RestoreLogs\restore.log

7 Click Done.

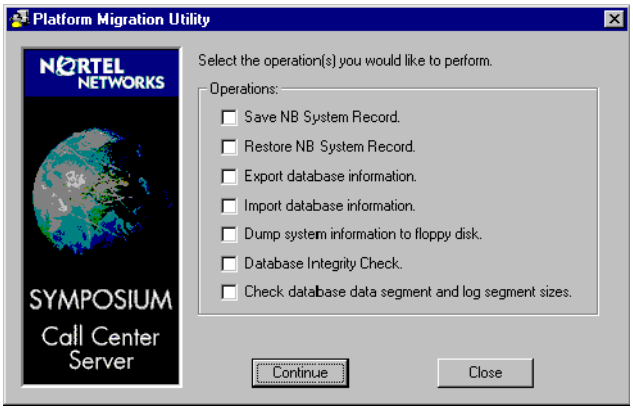
Result: The following dialog box appears:

8 Eject the backup tape from the tape drive, and then click OK to exit the Database Restore utility. *Do not* restart the server.

9 Restore the NBSystemRecord by following these steps:

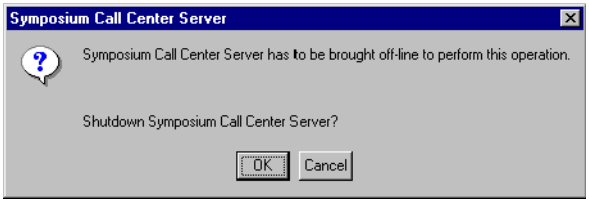
a. From the Windows Start menu, choose Programs → Symposium Call Center Server → Migration.

Result: The Platform Migration Utility dialog box appears.



b. Select the Restore NB System Record option. Click Continue.

Result: The following dialog box appears:


Symposium Call Center Server
Symposium Call Center Server has to be brought off-line to perform this operation.
Shutdown Symposium Call Center Server?
OK
Cancel

c. Click OK to shut down the Symposium Call Center Server.

Result: When the Symposium Call Center Server shuts down, the following dialog box appears:

Restore NBSystemRecord
Please insert the floppy disk labeled as NBSystemRecord Backup to the disk drive.
Press OK when ready.
OK
Cancel

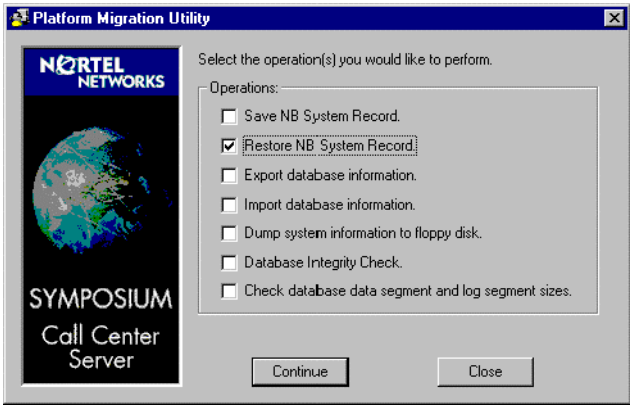
d. Insert the NBSystemRecord Backup disk created in step 2 into the drive, and click OK to continue.

Note: It takes some time for the database server to recover from the database restore and can take several minutes for the SQL database server to start up properly. The utility waits until the SQL server is started before restoring the NBSystemRecord table. Wait until the following dialog box appears:

Symposium Call Center Server
NBSystem Record has been restored successfully.
Please eject the floppy disk from the disk drive.
OK

e. Eject the NBSystemRecord Backup disk from the drive, and then click OK to continue.

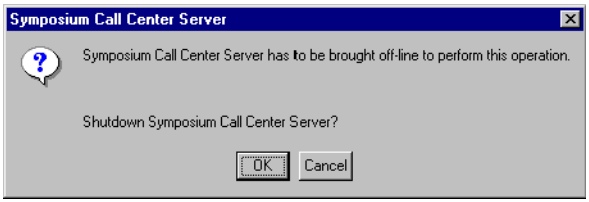
Result: The selection dialog box appears.



10 Perform the database integrity check by following these steps:

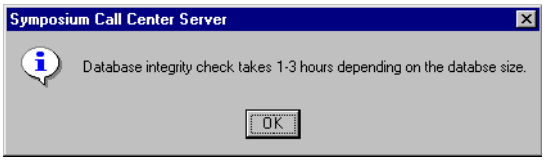
a. Select the Database Integrity Check option. Click Continue.

Result: The following dialog box appears:


Symposium Call Center Server
Symposium Call Center Server has to be brought off-line to perform this operation.
Shutdown Symposium Call Center Server?
OK
Cancel

b. Click OK.

Result: The following dialog box appears:



c. Click OK to start the database integrity check.

Note: The database integrity check takes a while to complete, and you might not see any activity on the screen, but you should notice continuous disk activity. Wait until the following dialog box appears:

Symposium Call Center Server
Database integrity check completed successfully.
Please see C:\DbChk.log for integrity check result.
OK

d. Click OK to terminate the utility (the utility closes automatically when you click OK).

e. Check the database check log (C:\DbChk.log) for database errors.

Note: Contact your Nortel Networks customer support representative for any detected database error. *Do not* put the server into service with any detected database errors, even if it seems to be functioning normally. When checking the log file, search for key words such as ERROR or MSG.

11 Remove the latest Service Update pack by following these steps:

a. Start the DMI View utility by choosing, from the Windows Start menu, Programs → Symposium Call Center Server → DMI View.

Result: The DMI Viewer window appears.

b. Click Show PEPs.

c. Select the PEP you want to uninstall.

d. Click Remove.

Result: The Service Status Log appears.

e. Click Accept.

Result: The Nortel System Operation window appears.

f. Click OK.

Result: The following message appears: `Setup reboots system after uninstall`.

g. Click OK.

Result: The system restarts.

12 Log on to Windows NT as NGenSys.

13 Reinstall the latest Super PEP and any dependent PEPs by following these steps:

a. Shut down all applications, including screen savers.

b. Insert the PEP CD into the CD-ROM drive, or download the PEP or Service Update electronically.

c. Locate the PEP directory on the CD.

Example: For the PEP named NS030121G001S, the path might be E:\03.01.21\PEPs\NS030121G001S, where

Code	Meaning
NS	Nortel Networks Symposium Call Center Server
030121	Build number of Symposium Call Center Server software
G	General Release (Other options include SU=Service Update, L=Limited, and R=Restricted.)
001	the PEP number
S	a server PC PEP (Other options include C=Client.)

d. Check the readme file in the PEP directory for any special instructions or dependencies before installing the PEP.

e. Double-click the file runme.exe, and then follow the screen instructions.

Result: The PEP installer wizard verifies that the PEP can be installed successfully. The PEP installer then shuts down and restarts the server. For PEPs installed on the client PC, the PEP installer checks that no Symposium Call Center Server services are currently running. This process takes several minutes. The client PC is not shut down. The PEP is installed on the PC and all updated files are backed up.

Note: If the PEP installer detects that the PEP cannot be installed successfully, contact your Nortel Networks customer support representative for assistance.

14 Restart the server.

Section B: Recovering a 1000t, 701t, 702t, or 1001t RAID system

In this section

Replacing a drive on a 1000t, 701t, 702t, or 1001t 410
Rebuilding the RAID drives on a 701t, 702t, 1000t, or 1001t 416
Recovering a 701t, 702t, 1000t, or 1001t system running in split mode 419
Recovering a 701t, 702t, 1000t, or 1001t system from a backup 421

Replacing a drive on a 1000t, 701t, 702t, or 1001t

Introduction

Follow the procedures in this section to replace a hard drive on a server that has a RAID controller.

Note: The server must be offline when you replace the drive.

CAUTION

Risk of data loss

Before you begin this procedure, make sure that the backup drives you are using are properly labeled.

RAID utilities

Two utilities are used in the replacement process:

- dac960 Monitor utility (dacmon.exe)

  By default, this utility is always running on a Windows NT system that has the dac960 RAID controller. This utility displays the status of the RAID controller, its hard drives, and the progress of any hard drive rebuild operation.

  When a hard drive fails, the dac960 Monitor utility window appears on the screen and reports the event. The fault is also logged to the Windows NT event log under the application events. The server continues to function, using the mirrored pair of the faulty hard drive until the faulty hard drive is replaced.

- dac960 Administration utility (dacadm.exe)

  This utility enables you to determine which hard drive has failed and to rebuild the replacement hard drive.

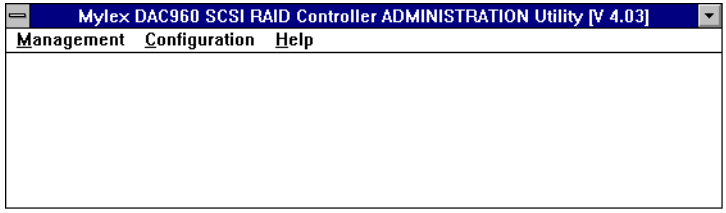
Requirements

- Check that the dac960 Monitor utility (d:\winnt\system32\dacmon.exe) is running when you perform these procedures.
- If the faulty hard drive is being replaced, do the following:
  - Ensure that the replacement hard drive is the same size as or a greater size than the faulty hard drive.
  - Ensure that the replacement hard drive has the same SCSI ID as the faulty hard drive.
  - Insert the new hard drive into the drive array in the slot that held the old hard drive.

To determine which hard drive had a failure

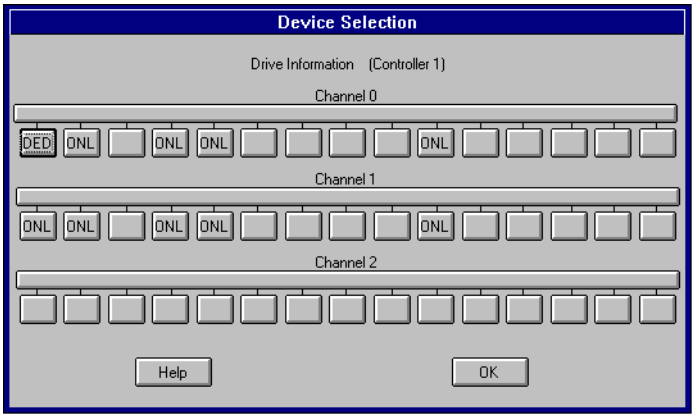
1. Log on to Windows NT as NGenSys.
2. Run dacadm.exe from a command line or through Windows NT Explorer (d:\winnt\system32\dacadm.exe).

   Result: The Mylex DAC960 SCSI Controller Administration Utility main window appears.



3 From the Configuration menu, select Drive Information.

Result: The Device Selection window appears. This window displays all SCSI buses and hard drives in the system. The status of each hard drive is identified by a label.

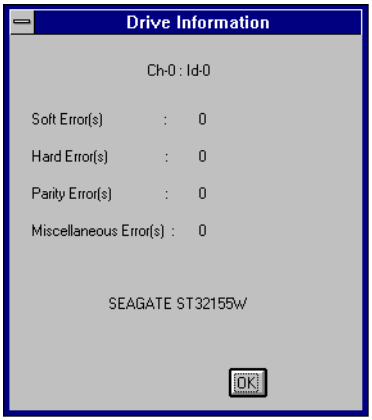


The hard drive status labels have the following definitions:

Label	Definition
ONL	working, online hard drive
DED	dead (failed) hard drive
SBY	Standby (this only appears if you make a hard drive Standby using the dac960 Administration utility)

4 Click the hard drive marked DED.

Result: The Drive Information window appears.



5 Record the SCSI bus and SCSI ID of the hard drive.

Example: Ch-0:Id-0 in the Drive Information window refers to a hard drive on SCSI channel 0 with SCSI ID 0.

6 Click OK to exit the Drive Information window.

7 Click OK to exit the Device Selection window.

8 Replace the faulty hard drive with the backup drive. Replace the other drive in the system pack with a blank formatted disk. Refer to the maintenance guide for your hardware platform for instructions.

To rebuild the new hard drive

1 Log on to Windows NT as NGenSys.

2 Shut down all Symposium Call Center Server services by choosing, from the Windows Start menu, Programs → Symposium Call Center Server → Shutdown.

3 If you are not already running the dac960 Administration utility, then run dacadm.exe from a command line or through Windows NT Explorer (d:\winnt\system32\dacadm.exe).

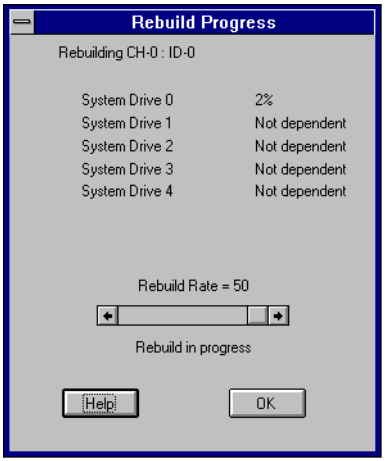
Result: The dac960 Administration utility main window appears.

4 From the Management menu, choose Rebuild Drive.

Result: The Device Selection window appears. This window displays all SCSI buses and hard drives in the system. The status of each hard drive is identified by a label.

5 Click the hard drive marked DED.

Result: The Rebuild Progress window appears.



The Rebuild Progress window displays the rebuild progress in percentage form beside the relevant System Drive.

The dac960 Monitor utility comes to the foreground and displays the rebuild progress in percentage form.

The following table provides approximate times for a rebuild to complete:

Hard drive size	Approximate time to rebuild
2 Gbyte	15 minutes
4 Gbyte	30 minutes
9 Gbyte	1 hour

6 Once the rebuild is complete, a dialog box titled Rebuild Drive appears and contains the message “Rebuild over.”

Note: If this dialog box is hidden by the dac960 Monitor utility window, then click on the Rebuild Progress window to bring it and the Rebuild Drive dialog box to the front.

7 Click OK in the Rebuild Drive dialog box.

8 Click OK in the Rebuild Progress window.

9 Check the Drive Selection window. The label on the replacement hard drive will read ONL to indicate that the new hard drive is working and online.

10 Click OK on the Drive Selection window.

11 In the dac960 Administration utility main window, click the hyphen in the top left corner to access a menu. From this menu, choose Close to stop the dac960 Administration utility.

Result: The server is fully operational.

Rebuilding the RAID drives on a 701t, 702t, 1000t, or 1001t

Introduction

Use this procedure after you have split the RAID drives and are confident with the operation of your system.

Assumptions

This procedure assumes that you are rebuilding the RAID drives using the drives that were split previously. If you are using new drives, make sure you do the following tasks:

- Set the SCSI IDs for the new drives correctly.
  - For a hot-swap system (1000t or 1001t platform), set the SCSI ID to 0.
  - For a non-hot-swap system (701t or 702t platform), use the jumpers on the drives to set the SCSI IDs correctly.

    For detailed instructions, see the maintenance guide for your hardware platform.
- Format the new drives.

To rebuild the RAID drives

1. Shut down the server.
   a. For Windows NT 4.0, from the Start menu, choose Shutdown.
   b. Click Shut down the computer, and then click Yes.
2. Power down the server.
3. Reconnect the hard drives.
   - For a hot-swap system (1000t or 1001t platform), insert the hard drive.
   - For a non-hot-swap system (701t or 702t platform), connect the SCSI cables for channel 1.

For detailed instructions, see the maintenance guide for your hardware platform.

4 Insert the dac960 Configuration disk in the floppy disk drive.

5 Power on the server.

Result: POST messages from the RAID controller warn you that the system is operating in critical mode (that is, with some drives offline). The A:\> prompt appears.

6 Type **CD \daccfg** and press Enter.

Result: The A:\DACCFG\> prompt appears.

7 Type **daccf** and press Enter.

Result: The daccf utility starts and might display the current SCSI buses. Drives A-0, B-0, C-0, and so on are ONL (online), and drives A-1, B-1, C-1, and so on are DED (dead).

8 If the utility prompts you to save the current state of the RAID controller, type **S**.

9 If you are prompted to restart, do so, and repeat steps 6 and 7.

Result: The main menu of the dac960 Configuration utility appears.

10 Choose Rebuild and press Enter.

Result: The utility shows a list of the hard drives.

11 Select A-1 and press Enter.

Result: The utility prompts you to format before rebuilding.

12 Select No and press Enter.

Result: The utility begins rebuilding the drive. It takes approximately 45 minutes to rebuild a 4 Gbyte volume.

13 When prompted to continue, press Enter.

14 Repeat steps 10 to 13 for each drive to be rebuilt. (For a 701t, 702t, or 1000t, rebuild drives B-1 and C-1. For a 1001t, rebuild drives B-1, C-1, D-1, and E-1.)

15 When all drives are rebuilt, press Esc to exit the dac960 Configuration utility.

Result: The A:\DACCFG\> prompt appears.

16 Remove the dac960 Configuration disk from the floppy drive.

17 Press Ctrl+Alt+Delete to restart the server.

Recovering a 701t, 702t, 1000t, or 1001t system running in split mode

Introduction

Nortel Networks recommends that you split your RAID drives before making major changes to your server, such as upgrading the server software or applying PEPs. If the process fails, you can use this procedure to restore your system to its former state by following this procedure.

To recover a system running in split mode

1 Shut down the server.

   a. For Windows NT 4.0, from the Start menu, choose Shutdown.

   b. Click Shutdown the computer, and then click Yes.

2 Power down the server.

3 Reconnect the hard drives to be used for recovery.

   a. For a hot-swap system (1000t or 1001t platform), unseat the channel 0 drives and insert the channel 1 drives into their slots until they are firmly connected. (Do not remove the channel 0 drives completely.)

   b. For a non-hot-swap system (701t or 702t), disconnect the channel 0 SCSI cable and reconnect the channel 1 SCSI cable.

   For detailed instructions, see the maintenance guide for your hardware platform.

4 Insert the bootable dac960 Configuration disk in the floppy disk drive.

   Note: If the dac960 disk is not bootable, insert a bootable disk to start the system until the DOS prompt appears, and then insert the dac960 Configuration disk.

5 Power up the server.

   Result: During start-up, POST messages from the RAID controller warn that the system is having problems recognizing the system drives (some drives are offline). The channel 0 drives should be listed as dead.

   The A:\> prompt appears.

6 If you are prompted for the date and time, make sure the displayed date and time are correct. If they are correct, press Enter. If they are not correct, enter the correct date and time.

7 Type **cd daccfg** and press Enter.

Result: The A:\daccfg\> prompt appears.

8 Type **daccf** and press Enter to start the dac960 Configuration utility.

Result: The daccf Configuration utility starts and scans the drives on channel 1and then displays drive status. Drives on channel 1 have an original state of DEAD and a current state of ONLINE.

9 If prompted to save the configuration, type **S**.

Result: The utility scans the drives again.

10 When the scan is complete, press Esc to exit.

Result: A prompt appears reminding you to save the configuration.

11 Select **Yes** and press Enter.

Result: The A:\DACCFG\> prompt appears.

12 Press Ctrl+Alt+Delete to restart the server.

Result: Symposium Call Center Server is now restored.

When you are ready to rebuild the RAID system, follow the steps outlined in “Rebuilding the RAID drives on a 701t, 702t, 1000t, or 1001t” on page 416.

Note: The server must be offline when you rebuild the drives.

Recovering a 701t, 702t, 1000t, or 1001t system from a backup

Introduction

Follow this procedure to restore an entire system from a disk backup.

CAUTION

Risk of data loss

Before you begin this procedure, make sure that the backup drives you are using are properly labeled.

To recover an entire system

1. Shut down the server.
   a. For Windows NT 4.0, from the Start menu, choose Shutdown.
   b. Click Shutdown the computer, and then click Yes.
2. Power down the server.
3. Disconnect the hard drives.
   a. For a hot-swap system (1000t or 1001t platform), unseat all drives from both channel 0 and channel 1.
   b. For a non-hot-swap system (701t or 702t), disconnect the SCSI cable for both channel 0 and channel 1.

   For detailed instructions, see the maintenance guide for your hardware platform.
4. Insert the bootable dac960 Configuration disk in the floppy disk drive.

   Note: If the dac960 disk is not bootable, insert a bootable disk to start the system until the DOS prompt appears, and then insert the dac960 Configuration disk.

5 Power up the server.

Result: During start-up, POST messages from the RAID controller warn that the system is having problems recognizing the system drives (some drives are offline). The channel 0 drives should be listed as dead.

The A:\> prompt appears.

6 Type **cd daccfg** and press Enter.

Result: The A:\daccfg\> prompt appears.

7 Type **daccf -o** and press Enter to start the dac960 Configuration utility.

Result: The daccf Configuration utility starts.

8 From the main menu, choose Tools and press Enter.

9 From the Tools menu, choose Clear Configuration and press Enter.

10 Select Yes to confirm.

11 Exit from the dac960 Configuration utility by pressing Esc and selecting Yes when prompted to exit.

Result: The A:\DACCFG\> prompt appears.

12 Power down the server.

13 Remove the set of drives that you will be replacing with the backup drives. (For example, if the backup was created on the channel 1 drives, remove the channel 1 drives.)

14 Install the backup drives.

- For a hot-swap system (1000t or 1001t platform), insert the hard drive.
- For a non-hot-swap system (701t or 702t platform), connect the SCSI cables for the hard drive.

For detailed instructions, see the maintenance guide for your hardware platform.

15 Make sure that the bootable dac960 Configuration disk is still in the floppy disk drive.

16 Power up the server.

Result: During start-up, POST messages from the RAID controller warn that the system is having problems recognizing the system drives (some drives are offline). The channel 0 drives should be listed as dead.

The A:\> prompt appears.

17 Type **cd daccfg** and press Enter.

Result: The A:\daccfg\> prompt appears.

18 Type **daccf** and press Enter to start the dac960 Configuration utility.

Result: The daccf Configuration utility starts and scans the drives on both channels. It displays the drive statuses. The backup drives should have a status of ONL, and the other drives should be DED.

19 If prompted to save the configuration, type **S**.

20 Exit from the dac960 Configuration utility by pressing Esc and selecting Yes when prompted to exit.

Result: The A:\DACCFG\> prompt appears.

21 Remove the dac960 Configuration disk from the floppy drive.

22 Press Ctrl+Alt+Delete to restart the server.

Result: During start-up, POST messages from the RAID controller warn that some drives are dead. The server should boot normally.

23 When you log on to Windows NT, the dac960 RAID Control Monitor window appears. It reports the statuses of the dead drives. You can minimize this window.

When you are confident of system operation, proceed to rebuild the drives. (See “Rebuilding the RAID drives on a 701t, 702t, 1000t, or 1001t” on page 416.)

Section C: Recovering a 1003t RAID system

In this section

Recovering a drive on a 1003t 426
Rebuilding the RAID drives on a 1003t 428
Recovering an entire system on a 1003t 430

Recovering a drive on a 1003t

Introduction

Follow the procedures in this section to recover a hard drive on a server that has a RAID controller.

Note: The server must be offline when you recover the drive.

Before you begin

Make sure you have the backup disk, and a new or blank formatted disk. (To find out how to format a disk, see “To format drives” on page 348.)

CAUTION

Risk of data loss

Before you begin this procedure, make sure that the backup drives you are using are properly labeled.

To determine which hard drive had a failure

1. Log on to Windows NT as Administrator.
2. Start the NetRAID Assistant utility.

   Result: The Server Selection dialog box appears.
3. Select the local server, and make sure access mode is set to Full Access.

   Result: The NetRAID Assistant window appears.
4. Check which drive is in FAIL state.
5. Replace the faulty hard drive with the backup drive. Replace the other drive in the system pack with a blank formatted disk. Refer to the maintenance guide for your hardware platform for instructions.

To rebuild the new hard drive

1. Power on the server.

   Result: POST messages from the RAID controller warn you that the system is operating in critical mode (that is, with some drives offline). The following message appears: `Option: Experienced User may press <CTRL><M> for NP NetRAID Express Tools Now.`

2. Press Ctrl+M.

   Result: The Management menu appears.

3. Select Rebuild and press Enter.

   Result: A list of drives appears.

4. Highlight each new drive, and press Space.

5. Press F10.

   Result: The utility begins rebuilding the drive. It takes approximately 45 minutes to rebuild a 9 Gbyte volume.

Rebuilding the RAID drives on a 1003t

Introduction

Use this procedure after you have split the RAID drives and are confident about the operation of your system.

Assumptions

This procedure assumes that you are rebuilding the RAID drives using the drives that were split previously. If you are using new drives, make sure you do the following tasks:

- Set the SCSI IDs for the new drives to 0.
- Format the new drives (see “Formatting drives on a 1003t” on page 348).

To rebuild the RAID drives

1. Shut down the server.
   a. For Windows NT 4.0, from the Start menu, choose Shutdown.
   b. Click Shut down the computer, and then click Yes.
2. Power down the server.
3. Install the drives. For detailed instructions, see the maintenance guide for your hardware platform.
4. Power on the server.

   Result: POST messages from the RAID controller warn you that the system is operating in critical mode (that is, with some drives offline). The following message appears: `Option: Experienced User may press <CTRL><M> for HP NetRAID Express Tools Now.`
5. Press Ctrl+M.

   Result: The Management menu appears.

   Note: Since the NetRAID controller is in critical state, the utility might display a list of the current SCSI buses, in which the channel 0 drives are ONL and the channel 1 drives are FAIL.

6 Select Rebuild and press Enter.

Result: A list of drives appears.

7 Highlight each new drive, and press Space.

8 Press F10.

Result: The utility begins rebuilding the drive. It takes approximately 45 minutes to rebuild a 9 Gbyte volume.

9 Exit from the NetRAID Express Tools utility.

Recovering an entire system on a 1003t

Introduction

Follow this procedure to restore an entire system, either while it is running in split mode or from a backup.

Nortel Networks recommends that you split your RAID drives before making major changes to your server, such as upgrading the server software or applying PEPs. If the process fails, you can easily restore your system to its former state by following this procedure.

CAUTION

Risk of data loss

Before you begin this procedure, make sure that the backup drives you are using are properly labeled.

To recover an entire system

1. Power down the server.
2. Remove all hard disks for both channel 0 and channel 1. For detailed instructions, see the maintenance guide for your hardware platform.
3. Install the backup drives into their original location. (For example, if the backup was created on the channel 1 drives, insert them in channel 1.)
4. Insert new, blank formatted disks (see the *Administrator's Guide*, backup procedures) in the proper locations on Channel 0.
5. Start up the system.

   Result: POST warning messages from the RAID controller state that the system is having problems recognizing the system drives (configuration mismatch between the drives and the NVRAM). The system prompts you to go to NetRAID Express.
6. Press Ctrl+M to go to the NetRAID Express Tool utility.
7. Under the main menu, choose Rebuild for those drives on Channel 0 that are formatted. Note that a drive has to be marked FAILED to be rebuilt.

8 When the Rebuild operation is complete, exit the NetRAID Express utility.

9 Restart the server to full service.

Section D: Recovery using a third-party backup

In this section

Overview 434

Performing a restore from a full backup 435

Overview

Introduction

This section contains information necessary for conducting a full restore from a third-party backup utility. Customers must define their own full backup process based on the third-party backup utility.

A full restore can be used in the event of catastrophic failure when the latest database backup tape and the initial server setup data records and database configuration are not available for a Symposium Call Center Server reinstall.

Note: Restore from the full backup without Symposium Call Center Server reinstall should not be used in the following situations:

- full backup tape is not available
- the failed server is replaced with a new server that might have slightly different hardware configuration
- the failed server is replaced with a different server platform

Performing a restore from a full backup

Introduction

This section provides instructions that must be completed prior to restoring your server from the third-party backup.

Note: The customer must define the full backup and restore process based on the third-party utility used.

To prepare to restore your server

1. Reinstall WindowsNT 4.0 into a temporary partition. For MAS Legacy servers, this will be a temporary partition on drive D. For Platform Vendor Independence, this will be a temporary partition on drive C.
2. The drives must be setup exactly as documented in the hardware configuration guide for your server. This is critically important for the database drives as the database files are expected on a specific partition.
3. To restore the registry, there might be an option that must be selected in your third-party restore program. The registry is vital to the Symposium Call Center server.
4. If there is an option to restore file permissions from the tape backup, it is important that this option is selected during the restore process.
5. If there is an option to verify the restore, it should be selected to confirm that the restore process ran correctly.

To perform the restore

1. Start the restore using instructions in the third-party utility documentation.
2. When the restore is complete, restart your server.
3. After the server is in service, remove the temporary copy of WindowsNT that was installed in step 1.

Chapter 13

Using server utilities

In this chapter

Overview 438
Computer Name Sync 440
Nbconfig 442
Database Restore 451
DMI View 452
Feature Report 453
Migration 458
Registry Maintenance 459
Shutdown 460
Startup 462
System Information 463
Uninstall 465

Overview

Introduction

Symposium Call Center Server utilities are automatically installed when you install the Symposium Call Center Server. These utilities allow you to perform system operations not available within Symposium Call Center Server.

You can access the server utilities from the Windows Start menu by choosing Programs → Symposium Call Center Server.

Utility name and function overview

Utility name	Function
Computer Name Sync	Updates the computer name in the Symposium Call Center Server database.
Configuration (Nbconfig)	Enables you to add and modify site information for a Symposium Call Center Server network.
Database Restore	Restores the database from a backup tape.
DMI View	Shows the software suites that are managed by the Database Management Interface (DMI) and related information. It also allows you to view and remove Product Enhancement Packages (PEPs) installed on the system.
Feature Report	Enables you to view and modify switch parameters. It also enables you to view other system information and a list of installed features.
Migration	Allows you to obtain system information in preparation for restoring a full system or migrating to another hardware platform. See “Recovering the complete system” on page 365, or the *Migration Guide* for detailed instructions.

Utility name	Function
Registry Maintenance	Performs a registry comparison. This utility enables you to check for any corruption or change in the registry.
Shutdown/Startup (separate utilities)	Shuts down and starts up certain Symposium Call Center Server services. This is required for some maintenance and troubleshooting activities.
System information	Shows particulars about the Symposium Call Center Server system, such as names, IP addresses, and system numbers.
Uninstall	Lets you uninstall the Symposium Call Center Server application.

Computer Name Sync

Introduction

If you change the computer name after installing the Symposium Call Center Server, use this utility to synchronize the Symposium Call Center Server name and the current computer name.

Notes:

- This utility also updates the DNS Host Name to match the new computer name.
- This utility does not change the database's name. Make sure you keep a record of the original name, in case you need to do a full system recovery.

Computer name restrictions

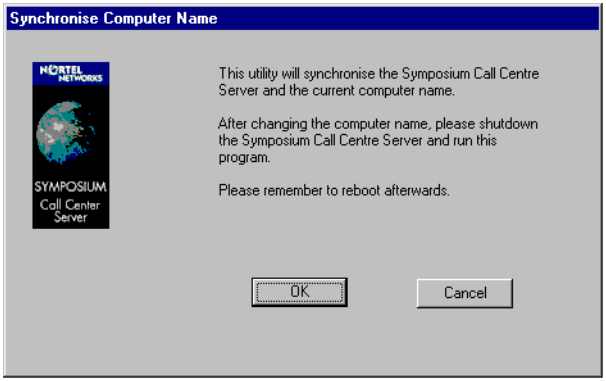
The new computer name must be a single word without spaces, 6 to 15 characters long. Letters, numbers, a hyphen, and a dash are allowed.

To change the computer name

1. First change the new computer name in Windows NT by choosing, from the Windows Start menu, Control Panel → Networks.
2. Restart the server.
3. From the Windows Start menu, choose Programs → Symposium Call Center Server → Shutdown.

4 From the Windows Start menu, choose Programs → Symposium Call Center Server → Computer Name Sync.

Result: The Synchronise Computer Name dialog box appears.


Synchronise Computer Name
NORTEL NETWORKS
SYMPOSIUM
Call Center Server
This utility will synchronise the Symposium Call Centre Server and the current computer name.
After changing the computer name, please shutdown the Symposium Call Centre Server and run this program.
Please remember to reboot afterwards.
OK
Cancel

5 Click OK.

Result: The utility changes the computer name and displays the following dialog box:

6 When this utility finishes, restart the server.

Nbconfig

Introduction

Use the configuration utility (Nbconfig) to perform the following tasks:

- Change the IP address of the server CLAN or ELAN card (see page 445).
- Change the server site name (see page 447).
- Add or remove servers, or change server address information (see page 448).
- Add sites at the NCC (see page 450).

Note: To perform the operations described above, you must start the Configuration utility with the admin access level.

Access levels

Two access levels are available in the Configuration utility: regular and admin. In the regular access level, all information is read-only. In the admin access level, you can make changes.

To start Nbconfig with the regular access level

From the Windows Start menu, choose Programs → Symposium Call Center Server → Configuration.

Result: The Nbconfig window appears showing three tabs:

- Local Machine Settings
- Address Table
- Site Table

To start Nbconfig with the admin access level

1 From the Windows Start menu, choose Run.

2 Type **nbconfig -admin** and click OK.

Result: The Nbconfig window appears.

Modes

Two modes are recognized within the Configuration utility: server mode and NCC mode. The configuration utility runs in server mode at each Symposium Call Center Server and in NCC mode at the NCC.

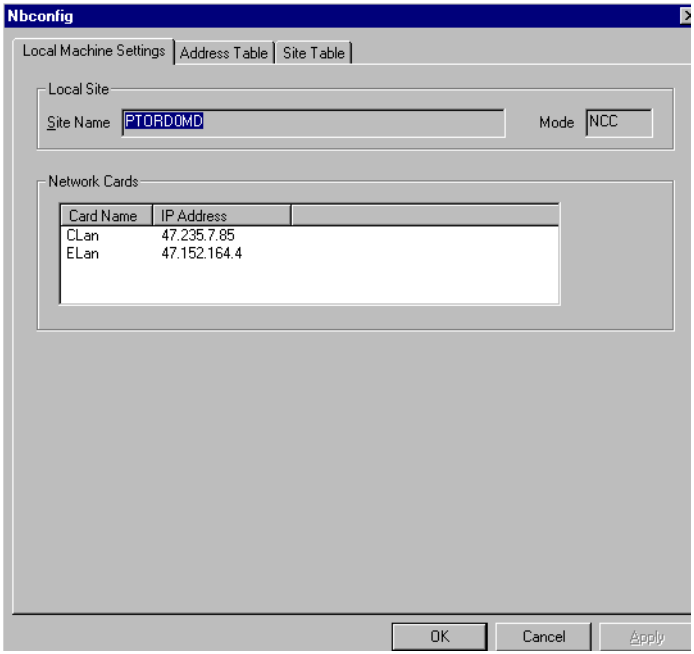
In NCC mode, you cannot add another NCC, enter a duplicate site name, or enter a Name Service IP address other than from the CLAN. In addition, if the new site cannot be connected, the Configuration utility allows you to remove the site.

Note: In NCC mode, you do not need to shut down services to add or delete sites.

Nbconfig property pages

Local Machine Settings

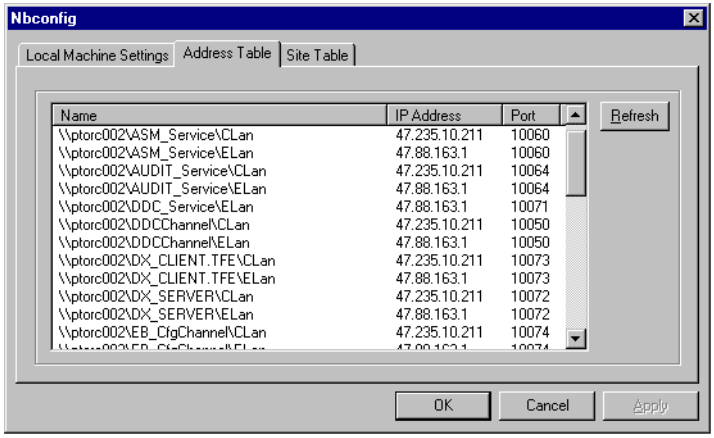
The Local Machine Settings tab displays Local site name and network card IP addresses.



For more information on Nbconfig for the NCC, refer to the *Network Control Center Administrator's Guide*.

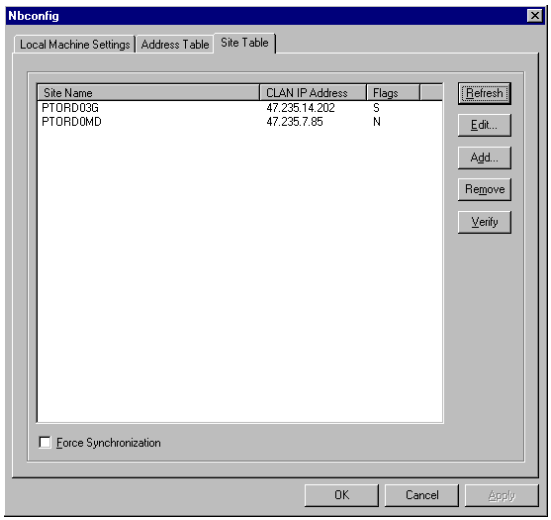
Address Table

The Address Table property page lists the computer name, IP address, and port information of all servers in the network, including the NCC.



Site Table

The Site Table property page lists information about site Names, IP addresses, and flags. In NCC admin mode, you can add sites.



Changing the server IP address or site name

To change the IP addresses on the Symposium Call Center Server, you must make this change in the following places:

- Change the IP addresses in the Network control panel.
- Change the IP addresses in the Configuration utility (NBCOM).
- If the Symposium Call Center Server is in a network with an NCC, then updates are required in the configuration utility at the NCC.

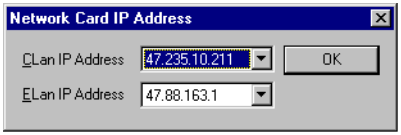
At installation time, the IP addresses are defined in the Network control panel and then again during the server software installation. All IP addresses must be unique. No further action is required unless you need to change the IP addresses after installation.

To change the server CLAN or ELAN IP address

1. Log on to Windows NT as NGenSys.
2. Close the SMonW window.
3. Shut down all Symposium Call Center Server services (from the Windows Start menu, choose Programs → Symposium Call Center Server → Shutdown).
4. Change the CLAN or ELAN IP address using the Network control panel. When the program prompts you to restart the server, click No.
5. Change the CLAN or ELAN IP address using the Configuration utility (Nbconfig) as follows:
   a. From the Windows Start menu, choose Run.
   b. Type **nbconfig -admin**.

      Result: The Edit button on the Local Machine Settings tab is enabled.
   c. Select the network card for which you want to change the IP address.
   d. Click Edit.

      Result: The Network Card IP Address window appears to allow you to select another CLAN or ELAN IP address from the drop-down list.



e. Make the changes and click OK.

6 Run nicomsetup.

a. From the Windows Start menu, choose Programs → Command Prompt.

b. Change to the drive on which Symposium Call Center Server is installed. For example, type **D:** and press Enter.

c. Type **CD\Nortel\ICCM\bin** and press Enter.

d. Type **nicomsetup** and press Enter.

Result: The IP address change is completed.

7 Restart the server by choosing, from the Windows Start menu, Shutdown.

8 If the server is in a networking environment (Meridian 1 only), continue as follows:

a. At the NCC, log on as NGenSys.

b. From the Windows Start menu, choose Run.

c. Type **nbconfig -admin**.

d. Click the Site Table tab.

e. Select the server for which you changed the IP address, and then click Remove.

f. Click Add and add the server.

g. Click Verify.

h. Click Apply to start synchronization.

i. From the Symposium Call Center Server Client, choose the site name that has been changed and open the properties for the site.

j. Do not delete the old IP address and add the new one.

9 If you are changing the IP address of the NCC (Meridian 1 only), continue as follows:

a. At the NCC, log on as NGenSys.

b. From the Windows Start menu, choose Run.

c. Type **nbconfig -admin**.

d. Click the Site Table tab.

e. Click Add and add all servers.

f. Click Verify.

g. Click Apply to start synchronization.

To change the server site name

1 Log on to Windows NT as Administrator.

2 Close the SMonW window.

3 Shut down all Symposium Call Center Server services (from the Windows Start menu, choose Programs → Symposium Call Center Server → Shutdown).

4 Run nicomsetup.

a. From the Windows Start menu, choose Programs → Command Prompt.

b. Change to the drive on which Symposium Call Center Server is installed. For example, type **D:** and press Enter.

c. Type **CD\Nortel\ICCM\bin** and press Enter.

d. Type **nicomsetup** and press Enter.

5 Change the server site name, using the Configuration utility (Nbconfig) as follows:

a. From the Windows Start menu, choose Run.

b. Type **nbconfig -admin**.

Result: The Edit button on the Local Machine Settings tab is enabled.

c. Make the desired changes, and then click OK.

6 If you are changing the site name of a server in a networking environment (Meridian 1 only), continue with the following:

a. Perform a stand-alone site name change on the server.

b. At the NCC, log on as Administrator, and from the Windows Start menu, choose Run.

c. Type **nbconfig -admin**.

d. Click the Site Table tab.

e. Select the server for which you changed the site name, and then click Remove.

f. Click Add and add the server.

g. Click Verify.

h. Click Apply to start synchronization.

i. From the Symposium Call Center Server Client, choose the site name that has been changed and open the properties for the site.

j. Modify the site name from the old site name to the new site name and save the changes. Do not delete the old site and add the new site.

7 If you are changing the site name of the NCC (Meridian 1 only), continue with the following:

a. Perform a stand-alone site name change on the NCC.

b. At the NCC, log on as Administrator, and from the Windows Start menu, choose Run.

c. Type **nbconfig -admin**.

d. Click the Site Table tab.

e. Click Add and add all servers.

f. Click Verify.

g. Click Apply to start synchronization.

To add or remove servers or change server address information

1 Log on to Windows NT as Administrator.

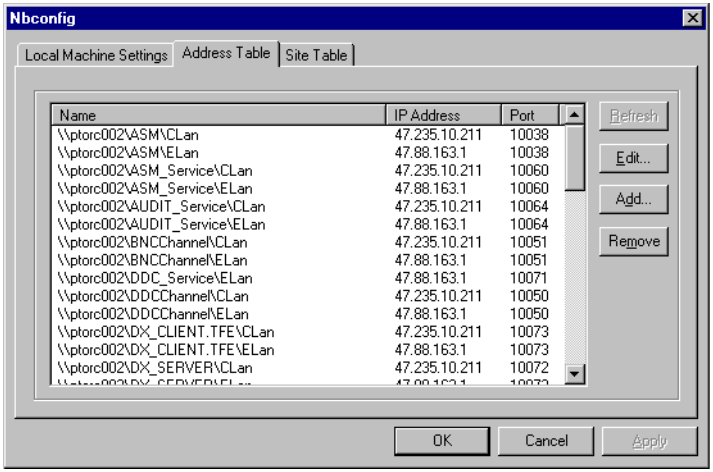
2 Shut down all Symposium Call Center Server services (from the Windows Start menu, choose Programs → Symposium Call Center Server → Shutdown).

Result: All services are shut down.

3 From the Windows Start menu, choose Run and type **nbconfig -admin.**

4 Click the Address Table tab.

Result: The Nbconfig window now shows an Edit, Add, and Remove button.



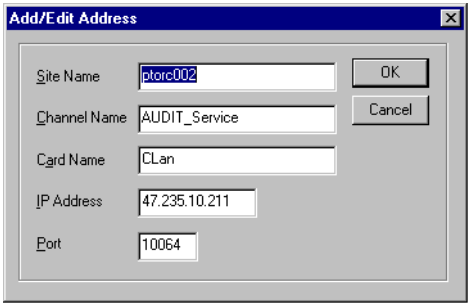
5 To remove a server, select it and click Remove.

6 To add a server, click Add.

Result: The Add/Edit Address window appears. The boxes in this window are blank. Continue with step 8.

7 To change a server, select it and click Edit.

Result: The Add/Edit Address window appears.



8 Enter the desired information and click OK.

To run the nicomsetup utility

Run the nicomsetup utility after a site name change to clear information from the Address Table and Site Table window.

1. From the Windows Start menu, choose Programs → Command Prompt.
2. Change directories to Nortel\ICCM\bin.
   a. Navigate to the drive where Symposium Call Center Server is installed; for example, type **D:** and press Enter.
   b. Type **CD\Nortel\ICCM\bin** and press Enter.
3. Type **nicomsetup** and press Enter.

   Result: All information is removed from the Address Table window and from the Site Table window.

For more information on adding site names in a network, refer to the *Network Control Center Administrator's Guide*.

To add a site (NCC mode only)

1. From the Windows Start menu, choose Run and type **nbconfig -admin.**
2. Click the Site Table tab.
3. Click Add, and then enter the CLAN IP address of the site you want to add.

For more information on adding site names in a network, refer to the *Network Control Center Administrator's Guide*.

Database Restore

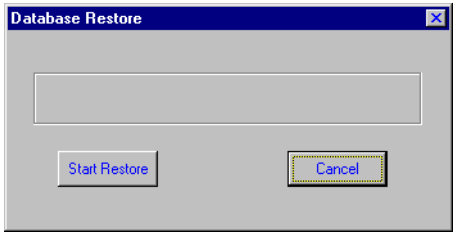
Introduction

Use this utility to restore a corrupted database or to recover an entire system. For detailed instructions, see Section A: “Recovery using a tape backup,” on page 359.

To access the Database Restore utility

From the Windows Start Menu, choose Programs → Symposium Call Center Server → Database Restore.

Result: The Database Restore dialog box appears.



With the backup tape in the tape drive, click Start Restore to restore the database.

Checking the restore status

The Database Restore utility creates a log file, named Restore.log, in the path D:\Nortel\data\backup\RestoreLogs. Use a text editor, like Notepad, to open the log file and check the status of the restore.

DMI View

Introduction

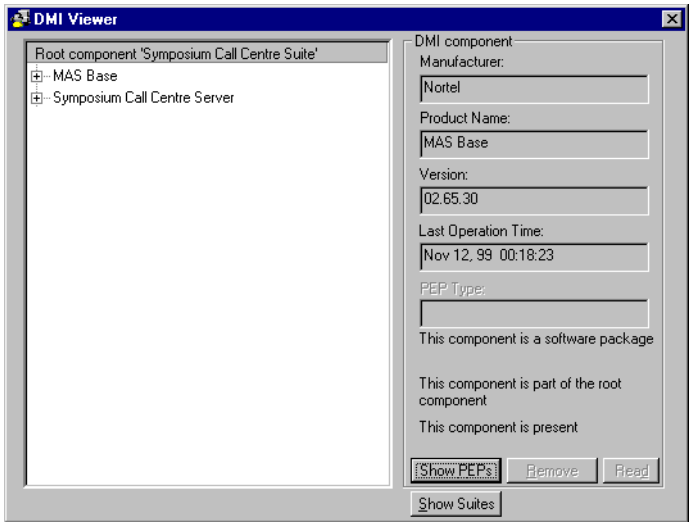
Use this utility to

- show the software suites that are managed by the Database Management Interface (DMI) and related information
- view and uninstall Product Enhancement Packages (PEPs) installed on the system (for detailed instructions, see “Uninstalling PEPs or Service Update packs from the server” on page 122)

To access the DMI View utility

From the Windows Start menu, choose Programs → Symposium Call Center Server → DMI View.

Result: The DMI Viewer window appears.

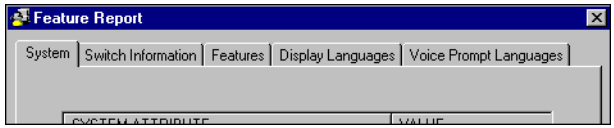


To view all installed PEPs, click Show PEPs.

Feature Report

Introduction

Use this utility to display system information and a list of installed features. The following illustration shows the Feature Report tabs:



Modifiable information

Only the Switch Information tab contains information that you can modify. All other tabs contain read-only information.

To start the Feature Report utility

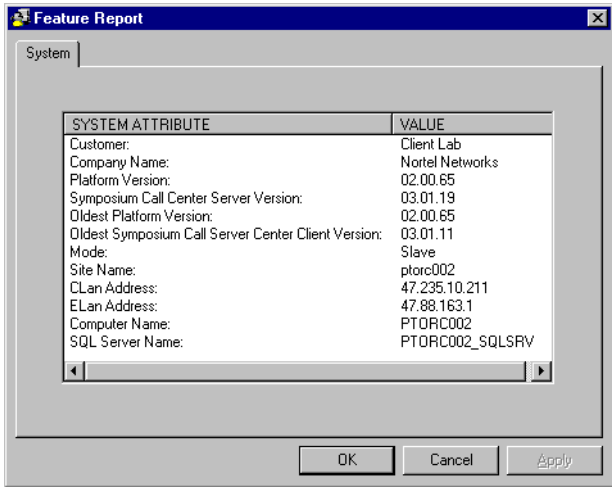
From the Windows Start menu, choose Programs → Symposium Call Center Server → Feature Report.

Result: The Feature Report window appears. See the following pages for a description and example of the Feature Report tabs.

Feature Report property pages

System

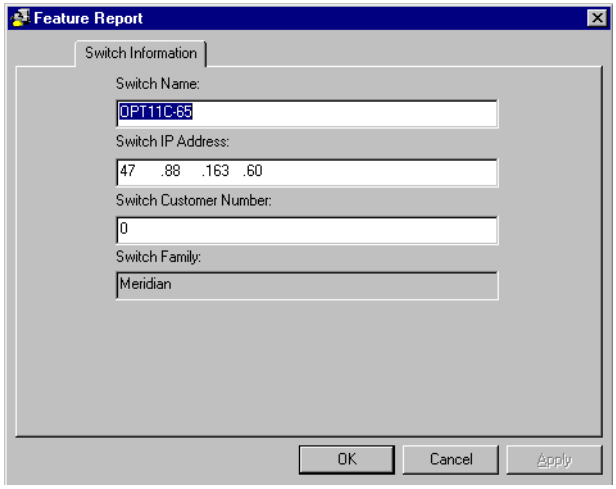
The System property page lists information entered at installation, including computer name, IP addresses, and site name. You cannot edit any of the items showing in this window, as it contains read-only information.



Note: In a networked environment, the NCC site name and IP address are automatically updated after the server is added to the list of sites on the NCC.

Switch Information

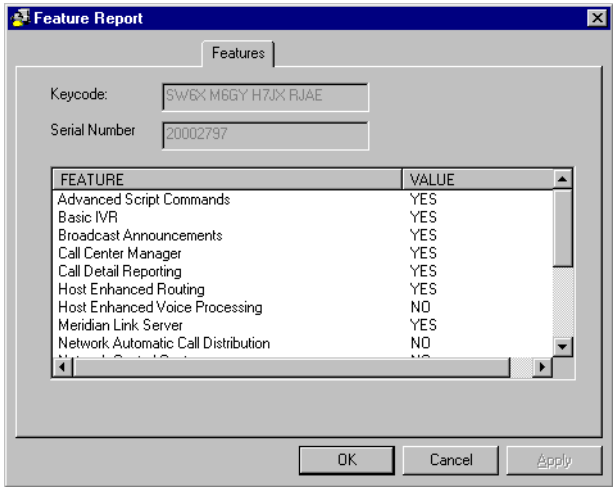
The Switch Information property page lists switch information and parameters. This information is entered during server software installation, but you can modify it after installation on this property page.



Features

The Features property page lists product features, and specifies which features are installed on the server. The features that are installed depend on what features were purchased and the keycode entered during server installation.

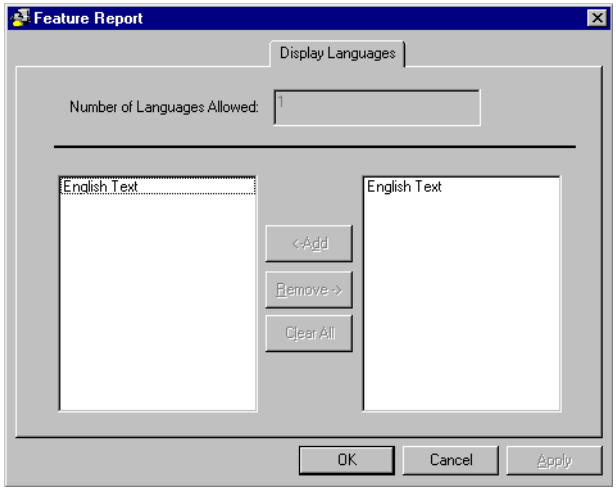
This property page contains read-only information.



Note: The value YES indicates that a feature is installed. The value NO indicates that the feature is not installed.

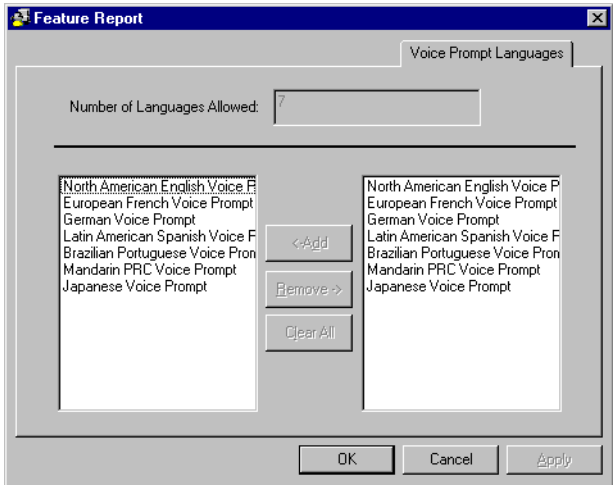
Display Languages

The Display Languages property page lists the languages that are installed for information that appears on the screen. This property page contains read-only information. The Add, Remove, and Clear All buttons are not selectable.



Voice Prompt Languages

The Voice Prompt Languages property page lists the languages that are installed for voice prompts. This property page contains read-only information. The Add, Remove, and Clear All buttons are not selectable.



To view or change switch information

1 From the Windows Start menu, choose Programs → Symposium Call Center Server → Feature Report.

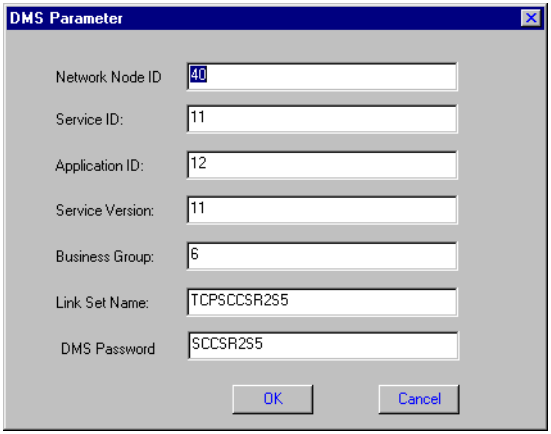
2 Select the Switch Information tab.

Result: The Switch Information tab appears. The following example is for a server connected to a Meridian 1 switch. For servers connected to an DMS/MSL-100 switch, the Switch Information tab shows different information.

3 Modify any switch information, if required.

4 For DMS/MSL-100 systems, click Edit DMS Switch Parameters. For Meridian 1 systems, there is no additional switch parameters screen.

Result: The DMS Parameter dialog box appears.



5 Modify switch parameters, if required.

6 To save changes, click OK.

Result: The Switch Information tab appears.

7 To save changes, click OK.

Result: You are prompted to restart to save changes.

8 Restart the server.

Result: The switch information is now updated on the server.

Migration

Introduction

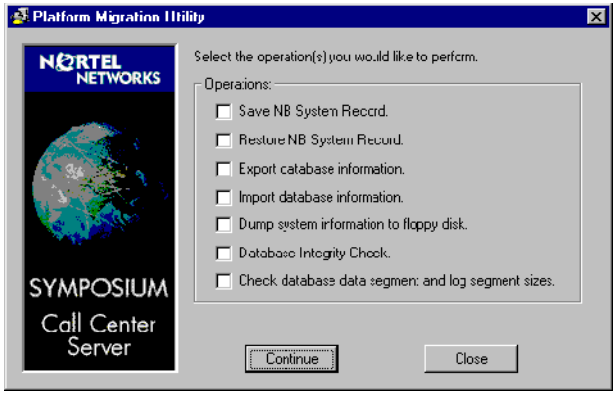
Use this utility

- to obtain system information in preparation for migrating to another hardware platform (for more information, see the *Migration Guide*)
- after installation, upgrade, conversion, or changes to the server configuration, to create a Platform Recovery disk (see “To create a Platform Recovery disk” on page 312)

To access the Migration utility

From the Windows Start menu, choose Programs → Symposium Call Center Server → Migration.

Result: The Platform Migration Utility dialog box appears, providing operations that you can perform.



Registry Maintenance

Introduction

Use this utility to perform a registry comparison between two remote machines, a remote and a local machine, or two subkeys on the local machine. This utility also has backup and restore capabilities.

The comparison picks up any difference between the two registry entries, such as values with the same name but different data, and values or subkeys that exist on one registry but not on the other. Filtering options are available.

To access the Registry Maintenance utility

From the Windows Start menu, choose Programs → Symposium Call Center Server → Registry Maintenance.

Result: The regexam window opens. From this window, you can perform the following tasks:

- Compare the registry on the server PC with the registry on a different PC.
- Compare the structure of the registry with the structure in an input file. Any differences between the two are noted, including different data and missing/extra keys/values. The input file is editable, and you can customize it to have a set or range of accepted values for certain keys instead of a fixed value.
- Write (dump) the structure of the registry starting from a given subkey. This option is an easy method for generating an initial input file for the detection option.
- Restore an earlier version of the registry.

Shutdown

Introduction

Use this utility to shut down Symposium Call Center Server services. Shutdown might be required prior to performing some maintenance activities.

This utility informs you about the state of each service and describes each action taken by the utility. At the end, the utility provides general information on whether the system is completely shut down and provides appropriate messages if there are services that cannot be shut down for some reason. The utility also reports any errors encountered during execution of the shutdown.

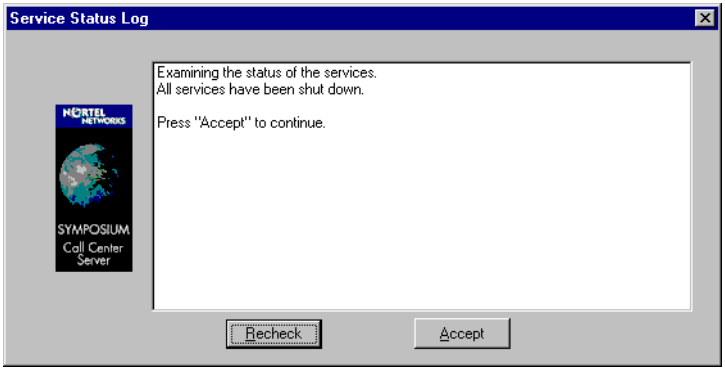
To shut down the server

1 From the Windows Start menu, choose Programs → Symposium Call Center Server → Shutdown.

Result: The Symposium Call Center Server Shutdown dialog box appears.

2 Click OK.

Result: The utility shuts down all services, and then the Service Status Log appears. This log displays any services that failed to shut down. You can click Recheck to refresh the service statuses.



3 If any services are still running, use the control panel services icon to manually shut down the listed services and click Recheck to update the summary window.

4 Click Accept to exit the utility.

Startup

Introduction

Use this utility to start up the Symposium Call Center Server services after they have been stopped by the Shutdown utility.

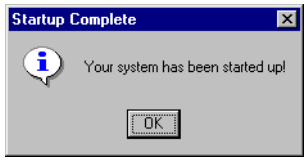
To start up the server

1 From the Windows Start menu, choose Programs → Symposium Call Center Server → Startup.

Result: The Symposium Call Center Server Startup dialog box appears.

2 Click OK.

Result: After all services have started, the Startup Complete dialog box appears.



System Information

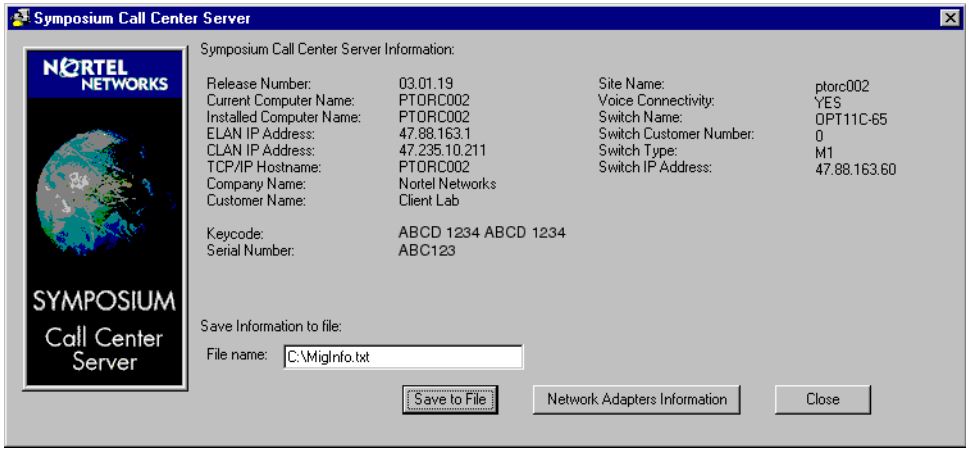
Introduction

Use this utility to view particulars about the Symposium Call Center Server System, such as names, IP addresses, and system numbers.

To access the System Information utility

From the Windows Start menu, choose Programs → Symposium Call Center Server → System Information.

Result: The Symposium Call Center Server information window appears.

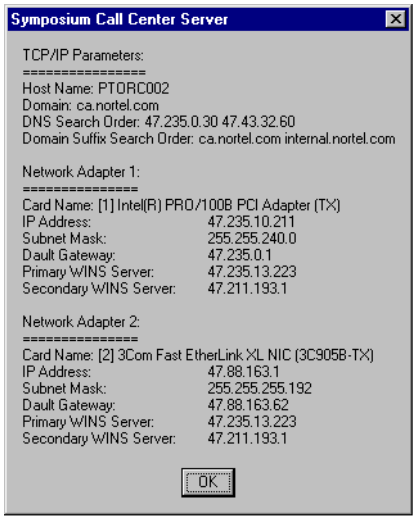


To use the System Information utility

Use this utility to view system information at a glance. You can also keep system information in a file on the computer or on a security floppy disk. To save a file, enter a path in the File name dialog box, such as C:\Mgtinfo.txt or A\:Mgtinfo.txt, and then click Save to File. A copy of all displayed information is saved in the file you just created.

To obtain Network Adapters Information

You can also obtain detailed information about network addresses by clicking Network Adapters Information. When you press this button, the following window appears:



After viewing the information on this screen, click OK to return to the System Information Utility main window.

Uninstall

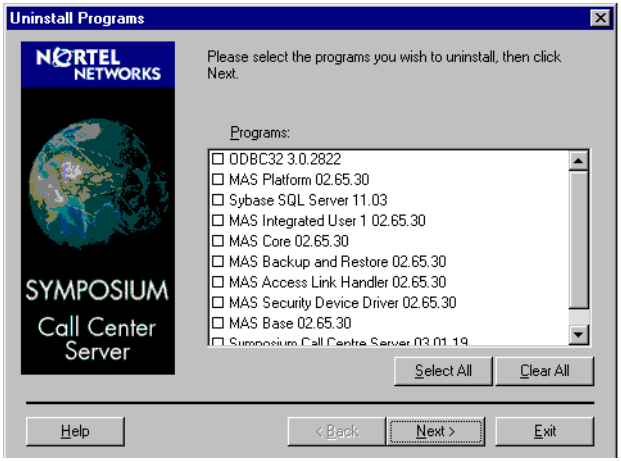
Introduction

Use this utility to uninstall the Symposium Call Center Server application. From the Uninstall main window, select the items you want to uninstall, and then click Next to start the uninstall wizard. (For detailed instructions, see “Uninstalling server software” on page 242.)

To use the Uninstall utility

1 From the Windows Start menu, choose Programs → Symposium Call Center Server → Uninstall.

Result: The Uninstall Programs window appears.



2 Click the items you want to uninstall, or click Select All.

3 Click Next and follow screen instructions from the uninstall wizard.

For more information on installing and uninstalling Symposium Call Center Server software, refer to “Installing the server software” on page 75 and “Installing the client from the distribution CD” on page 142.

Chapter 14

Installing and configuring Real-time Statistics Multicast

In this chapter

Overview 468

Installing Real-time Statistics Multicast 469

Modifying Real-time Statistics Multicast settings 471

Testing the Real-time Statistics Multicast service 479

Overview

Introduction

If the optional Real-time Statistics Multicast (RSM) feature is installed on your Symposium Call Center Server server, you can begin using the RSM service with the default RSM settings, or modify RSM's settings to conform to the requirements of your RSM-dependent applications.

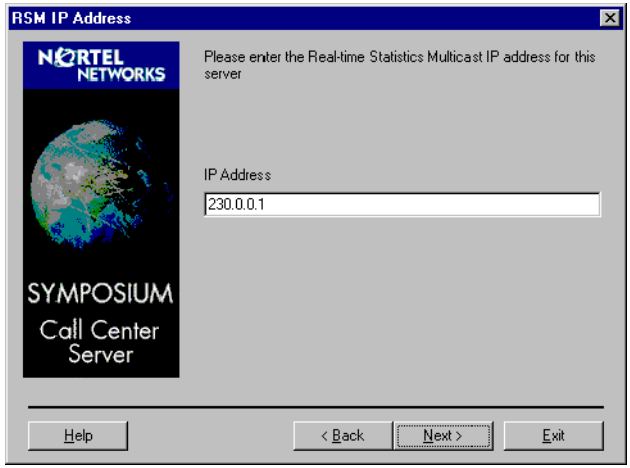
Installing Real-time Statistics Multicast

Introduction

RSM is installed during the Symposium Call Center Server installation. The installation process checks to make sure that you have the correct key code for RSM, and then installs the required RSM files on the server. When you install RSM, you must provide the IP multicasting address that will be used to transmit RSM data. The default port numbers and multicast rates for real-time statistics are set automatically.

To install Real-time Statistics Multicast

During the installation, you are prompted to enter the IP multicast address that RSM will use to send real-time statistical data.



The RSM IP Address dialog box appears whenever RSM is detected during any one of the following scenarios:

- an initial installation of Symposium Call Center Server
- a conversion, upgrade, or reinstallation of Symposium Call Center Server

For more information on installing the RSM feature in Symposium Call Center Server, see “Installing the Server Software” or “Converting, upgrading, reinstalling and uninstalling server software”.

After completing the installation, you can do the following:

- Use the mRcv.exe utility to verify that the RSM service is sending data to the appropriate ports. See “To start the mRcv application,” on page 481 for more information.
- Accept the default RSM settings provided by the Symposium Call Center Server installation and begin using the RSM service.
- Modify the default settings to values recommended by your RSM-dependent applications. See “Modifying the Real-Time Statistics Multicast service,” on page 471 for more information.

Modifying Real-time Statistics Multicast settings

Introduction

After installing the optional Real-Time Statistics Multicast (RSM) feature, you can modify the Real-Time Statistics Multicast (RSM) component's default settings on each Symposium Call Center Server to reflect the requirements of your organization. You can modify the following settings:

- the IP multicast address to which each server in Symposium Call Center Server sends real-time statistics
- the ports at which real-time statistics are received
- the multicast Time To Live (TTL) value for RSM
- the default multicast rate for each port at which real-time statistics are received

This section outlines how to modify and then enable changes to the RSM service on a server in Symposium Call Center Server.

When you have completed your modifications, you must stop and restart the Statistical Data Propagator (SDP) service on the Symposium Call Center Server. The SDP_Service must be aware of IP multicast changes to send the appropriate data.

Note: When you modify multicast rates in the Multicast Configuration utility, you must open the Multicast Controller utility and click Apply to activate your changes. See "Modifying IP multicast settings on Symposium Call Center Server" on page 474 for more information.

Modifying the Real-Time Statistics Multicast service

After the RSM component is installed on each server in Symposium Call Center Server, you can use the following utilities to reconfigure RSM:

- RTD Multicast Controller Utility (MulticastCtrl.exe): Use this utility to modify settings for those applications that require that real-time statistics be turned on manually.

Note: The real-time statistic groups that you need to turn on or off vary depending upon the applications that are receiving data from the RSM service. It is highly recommended that you review the documentation for each RSM-dependent application in Symposium Call Center Server *before* modifying the RSM settings.

- RTD Multicast Configuration Utility (RSMConfg.exe): Use this utility to change:
  - the IP multicast address
  - the Time To Live (TTL) value for the IP multicast data
  - the IP ports that will send the real-time statistics
  - the multicast rates for the IP ports that will send the real-time statistics

To modify real-time statistics settings for applications that use the RSM service

The RTD Multicast Controller indicates which statistics will be sent and how they will be collected. Some applications that use RSM set this data automatically while others require manual configuration.

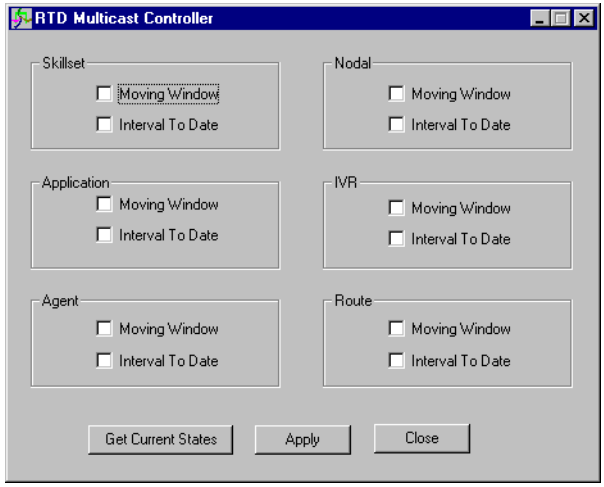
If you need to modify the default settings based on application requirements, or want to customize statistics to be sent to match the needs of your users, use the RTD Multicast Controller window to select or deselect the appropriate settings.

1 From the windows Start menu, click Programs → Windows NT Explorer.

2 Navigate to the folder in which the RSM component is installed:

[drive]:\Nortel\iccm\bin

3 Double-click MulticastCtrl.exe. The RTD Multicast Controller window appears.



4 Click the Moving Window and/or Interval To Date check boxes for each real-time statistics group.

The Meridian 1 switch real-time statistics groups are

- Skillset
- Application
- Agent
- Nodal
- Route
- IVR

The Digital Multiplex Switch (DMS) real-time statistics groups are

- Skillset
- Application
- Agent
- Nodal

5 Click Apply.

Tip: You must also use the controller utility's Apply button to activate changes to multicast rates made in the configuration utility. See "To activate a multicast rate modification," on page 477 for more information.

6 Click Close.

Modifying IP multicast settings on Symposium Call Center Server

Perform the following steps to modify the multicast IP settings in Symposium Call Center Server.

ATTENTION

It is highly recommended that you review the documentation for each of the RSM-dependent applications that use the RSM service in Symposium Call Center Server *before* modifying RSM's IP multicast settings.

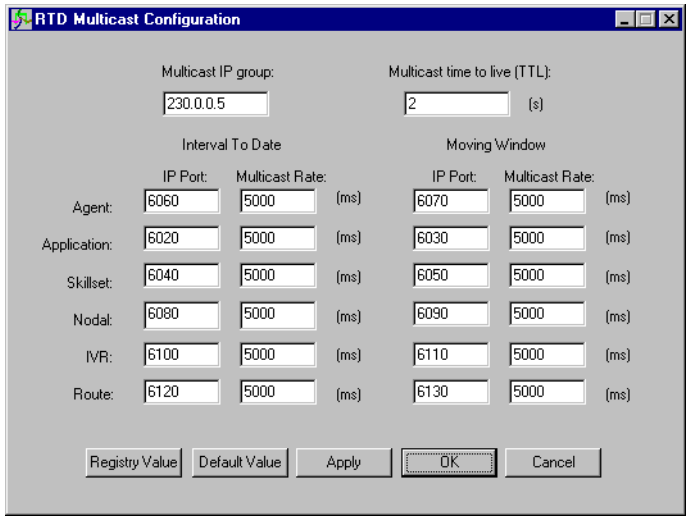
To modify the IP multicast settings in Symposium Call Center Server

1 From the windows Start menu, choose Programs → Windows NT Explorer.

2 Navigate to the folder in which the RSM component is installed:

[drive]:\Nortel\iccm\bin

3 Double-click RSMConfg.exe. The RTD Multicast Configuration window appears.



ATTENTION

The IP multicast addresses that support multicasting are 224.0.0.0 through 239.255.255.255, *but* the IP multicast addresses between 224.0.0.0 and 224.0.0.255 inclusive are reserved for routing and topology discovery protocols. The IP multicast addresses that you select for RSM sending and receiving *cannot* be within the 224.0.0.0 and 224.0.0.255 range.

4 In the IP Multicast group box, type the IP multicast address that has been designated as the sending address for IP multicasting in Symposium Call Center Server.

5 In the IP port boxes, type the IP port for each statistics group.

ATTENTION

Changing the IP port settings can cause some applications that are dependent upon the RSM service to malfunction.

6 Change the Multicast time to live (TTL) value to a value that is appropriate for your network.

ATTENTION

If packets are travelling through more than one router to reach their destination, it is important to change the Multicast time to live (TTL) value to a value that is appropriate for your network and the number of routers that you use. If the TTL value is set too low and the packets have to go through many routers, the real-time multicast statistics may not reach your application.

7 To increase or decrease the default multicast rate, enter a new rate in milliseconds for each port in the Multicast Rate boxes.

ATTENTION

Changing the Multicast Rate for any of the displays listed in RTD Multicast Configuration may not produce the refresh rate changes that you anticipate. Refresh rates are dependent upon settings in other applications as well as those set in the configuration window. In addition, certain applications require a specific multicast rate. Before changing a multicast rate, check the documentation for each application to verify that all applications that receive RSM data will not be affected by the change.

Tip: If you have made an error in modifying the multicast IP group, TTL, IP ports, or the multicast rates for each port, you can restore the original values by clicking Registry Values or Default Values. Note that if you modify any of these values and click OK or Apply, the appropriate registries are updated with your changes. Clicking Registry Values *after* the modifications have been saved to the registry will have no effect.

- Click Registry Values before you click Apply to retrieve the values stored in the registries. Use this option if you want to cancel a change without having to remember and retype the original values.
- Click Default Values to restore the values that are set when Symposium Call Center Server is installed. Use this option if you have saved changes to the registry that have caused RSM-dependent applications to malfunction, and you want to begin again with the default RSM configuration.

8 Click OK.

Note: To activate new RSM settings on Symposium Call Center Server (with the exception of the multicast rates), stop and start the Statistical Data Propagator (SDP) service. See "To activate the Symposium Call Center Server settings," on page 477 for more information.

Note: To activate new multicast rate settings on Symposium Call Center Server, you must open the configuration utility and click Apply. See "To activate a multicast rate modification," on page 477 for more information.

To activate a multicast rate modification

When you change a multicast rate in the configuration utility, you are only modifying the default value, not the current transmission rate. RSM will continue to transmit data at the current rate until you open the Controller utility and click Apply.

1 From the windows Start menu, choose Programs → Windows NT Explorer.

2 Navigate to the folder in which the RSM component is installed:

[drive]:\Nortel\iccm\bin

3 Double-click MulticastCtrl.exe. The RTD Multicast Controller window appears.

4 Click Apply. The new multicast rates are retrieved from the appropriate registry and RSM begins transmitting at the new rate.

5 Click Close.

Activating modifications to the RSM service in Symposium Call Center Server

When you modify the RSM service's multicast IP group, TTL, and IP port settings, you must activate the new values on Symposium Call Center Server by stopping and starting the Statistical Data Propagator (SDP) service.

To activate the Symposium Call Center Server settings

1 From the Start menu, choose Settings → Control Panel.

2 Click Services. The Services window opens.

3 From the list of services, select the SDP_Service.

4 Click Stop.

5 Click Start.

6 Click Close.

Tip: If you are having problems stopping and starting the SDP_Service, you can temporarily disable SDP_Service to stop it. After stopping, reset the service to start automatically, and then restart the service.

- Click the SDP_Service in the Services window.
- Click Startup. The Service dialog box appears.
- Click Disabled. The SDP_Service is disabled.
- Click OK to return to the Services window.
- With the SDP_Service highlighted, click Stop. The SDP_Service is stopped.
- Click Startup again. The Service dialog box appears.
- Click Automatic. The SDP_Service is set to automatically start when the system starts.
- Click OK to return to the Services window.
- With the SDP_Service highlighted, click Start to restart the service.
- Click Close.

Testing the Real-time Statistics Multicast service

After you have installed RSM on a Symposium Call Center Server or modified RSM and restarted SDP_Service, you can use the Multicast Receive utility (mRcv.exe) to test the RSM service. mRcv.exe displays statistical information according to the settings specified in a configuration file called mRcv.ini.

Configuring the Multicast Receive utility

The mRcv.exe utility tests the RSM service's send capabilities one port at a time. You can specify which IP address and port that the utility should monitor in the [MCast] section of the mRcv.ini file.

To modify the mRcv.ini file

1. From the Windows Start menu, choose Programs → Windows NT Explorer.
2. Navigate to the folder in which the RSM component is installed:

   [drive]:\Nortel\iccm\bin
3. Use a text editor to open mRcv.ini.
4. Modify the IP address or the port number, or both.

   Note: The port numbers listed within the section bordered by # symbols in the .ini file are for reference only and list all of the acceptable port numbers that you can use in your test. See ""Sample mRcv.ini file" on page 480 for an example of the information contained in a standard mRcv.ini file.

   For example, if you want to test receipt of Skillset - Interval to date data using mRcv.exe, check the port number for Skillset - Interval to date in the .ini file and then change the Port= setting in the [MCast] section to that port number. If Skillset - Interval to date = 6040 in the .ini file, the [MCast] section of the .ini file should be modified as follows:

```
[MCast]
IP=234.5.6.7
Port=6040
```

ATTENTION The IP= value must match your IP multicast address.

5 Save the mRcv.ini file. After setting the parameters for your test, you can start mRcv.exe to begin the test. See “To start the mRcv application” on page 481 for more information.

Sample mRcv.ini file

The sample below is the default mRcv.ini file provided by the Symposium Call Center Server installation. If you run the mRcv.exe utility using this .ini file, it will display Skillset - Moving window data sent by RSM based on the settings in the [MCast] section at the bottom of the file (IP = 234.5.6.7 Port = 6050).

Note: The list of port numbers in the mRcv.ini file is for reference only and each line is “commented out” with the # symbol. You can use these port numbers as an easy-to-access list of valid ports that are being used in the system to display data. The only portion of the .ini file that can be modified is the [MCast] section at the bottom of the file.

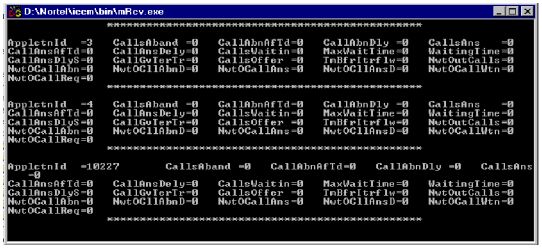
```
############################################################
#
# mRcv.ini file
#
# Valid port numbers are:
# Application - Interval to date = 6020
# Application - Moving window = 6030
# Skillset - Interval to date = 6040
# Skillset - Moving window = 6050
# Agent - Interval to date = 6060
# Agent - Moving window = 6070
# Nodal - Interval to date = 6080
# Nodal - Moving window = 6090
# IVR - Interval to date = 6100
# IVR - Moving window = 6110
# Route - Interval to date = 6120
# Route - Moving window = 6130
```

```
############################################################
[MCast]
IP = 234.5.6.7
Port = 6050
```

To start the mRcv application

1. From the Windows Start menu, choose Programs → Windows NT Explorer.
2. Navigate to the folder in which the RSM component is installed:

   [drive]:\Nortel\iccm\bin
3. Double-click mRcv.exe. The mRcv.exe utility opens in a console window displaying data from the port and IP address that you specified in the mRcv.ini file.



Note: The mRcv.exe utility will display *all* data being received on the selected port, including data that is not recognizable by RSM. All non-RSM data will be identified as “Not recognized by RSM.”

Chapter 15

Troubleshooting

In this appendix

Troubleshooting installation problems 484

Troubleshooting network connection problems 489

Troubleshooting the client-server connection 491

Troubleshooting problems with Symposium Call Center Server services 493

Troubleshooting problems with RSM 496

Troubleshooting other problems 498

Other documents 500

Troubleshooting installation problems

Introduction

To perform troubleshooting for the software installation, refer to the following chart. See “Other documents” on page 500 for more information and extended system-level troubleshooting.

When a system error occurs

For all errors, record the error messages, the system configuration, and actions taken before and after the error occurred. If the problem persists, contact your Nortel Networks customer support representative.

Troubleshooting chart for server installation problems

Symptom	Probable cause	Action
Error messages from the database setup during server installation.	Files copied incorrectly; other programs running on the server during installation.	■ Uninstall, and then reinstall the software. ■ Close any other programs running on the server (for example, Control Panel) before reinstalling.
Error messages at the end of the server software installation.	Files copied incorrectly.	Uninstall and then reinstall the software.
Blue screen appears during restart after pcAnywhere version 9.2 installation.	Incompatible video driver.	1 Press Reset to restart. 2 When prompted, select Windows NT VGA. 3 When the `Last known configuration` message appears, press Reset again. 4 Repeat steps 2 and 3 one more time. 5 When prompted, select Windows NT VGA. 6 Allow the server to start with the Last known good configuration. (After three failed restart attempts, pcAnywhere switches to Fault Tolerant start mode.) 7 If you see the message `A video compatibility problem caused pcAnywhere to switch to the "Compatibility" video mode`, click OK. 8 Uninstall pcAnywhere (see "Uninstalling pcAnywhere 9.2" on page 113).

Symptom	Probable cause	Action
		9 Change the video driver (see “To change the video drivers” on page 206). 10 Install pcAnywhere version 9.2 (see “Installing pcAnywhere version 9.2” on page 97). 11 If the problem is not resolved, contact your Nortel Networks customer support representative.
The following message appears when you try to configure pcAnywhere settings after uninstallation of version 8.02 and installation of 9.2: `You do not have rights to modify this file.`	This problem appears if pcAnywhere is installed on an NTFS drive and the pcAnywhere access rights for Windows NT users are set incorrectly.	1 Exit pcAnywhere. 2 Navigate to%Systemroot%Profiles\All Users\Application Data\Symantec. %Systemroot% is the Winnt35 directory if your OS was upgraded from Windows NT 3.51 to Windows NT 4. Otherwise, %Systemroot% is the Winnt directory. 3 Select the pcAnywhere directory. 4 Right-click the directory icon, choose Properties, and then select the Security tab. 5 Click Permissions and, for Administrators, select Type of Access: Full Control. 6 Click OK to save changes. 7 Click OK to close the Properties window.

Symptom	Probable cause	Action
Server fails to initialize with the switch.	■ Incorrect switch parameters were entered during server installation. ■ For a DMS/MSL-100 switch, the dongle is not attached to the parallel port on the server.	Verify and change switch parameters defined on the server. See “Feature Report” on page 453. Connect the correct dongle to the port. Ensure the dongle ID matches the serial number entered during installation.

Troubleshooting chart for client installation problems

Symptom	Probable cause	Action
Error messages at the end of the client software installation.	Files copied incorrectly.	Uninstall and then reinstall the software.
Client upgrade resets halfway through the setup.	This error occurs if, during the client upgrade, you choose to upgrade common Microsoft DLLs.	Reinstall the software. When you are informed of a newer or read-only version of a common Microsoft DLL, click No. Do not upgrade the file, as this causes the upgrade to fail.

Symptom	Probable cause	Action
Client software fails to start.	Possible client path overflow problem. The maximum length of the path is a function of the environment size, which depends on other parameters. To detect this problem, compare the path in the autoexec.bat file with the path shown by executing the command “path” at the command prompt.	1 Try reducing the length of the directory path for installing the client application software, or uninstall another software application from the client PC. 2 Uninstall the Symposium Call Center Server client application, restart the client PC, and reinstall the Symposium Call Center Server client application.
Error message: Setup is not able to determine whether DMI service is running.	You are not logged on to the client PC as Administrator.	Log on to the client PC as Administrator, and start the installation again.

Further troubleshooting

For detailed maintenance and diagnostics procedures, refer to one of the following guides:

- *Meridian Application Server Installation and Maintenance Guide* for your server hardware platform
- *Symposium Call Center Server Administrator’s Guide*

Troubleshooting network connection problems

Introduction

If the test described in "To test the ELAN and CLAN network connection" on page 67 fails, then follow these steps to verify that the server ELAN (and CLAN card, if present) are configured and identified correctly.

Note: If you want to verify that the 1.1.1.1 placeholder address has been assigned to the ELAN card and that the 2.2.2.2 placeholder address has been assigned to the CLAN card, you can perform these steps before you configure the ELAN and CLAN cards.

Requirements

- A laptop or PC that is near the server and can be connected directly to the server. In this procedure, the laptop or PC is referred to as the client PC.
- A direct connect (crossover) network cable that allows two PCs to be directly connected without a hub in between them.

To resolve the failed ping

1. Plug the crossover network cable into the network card in the client PC.
2. Plug the other end into the ELAN card in the server.
3. If you must restore the IP address information of the client PC after this procedure, then record the TCP/IP IP address, subnet mask, and gateway of the client PC.
4. Configure the client PC with an IP address that is part of the same subnet as the IP address assigned to the ELAN card.

   Example: If the server ELAN card has the IP address 1.1.1.1, then assign the laptop or PC an IP address of 1.1.1.2.
5. Set the client PC to have a subnet mask of 255.0.0.0. Leave the gateway blank.

6 Open an MS-DOS prompt window on the client PC and try to ping the server ELAN card. For example, if the server ELAN card has the IP address 1.1.1.1, then type **ping 1.1.1.1** and press Enter.

If the ping test succeeds, then you know that you have correctly identified the ELAN card in the network control panel.

The other network card, if present, must be the CLAN card.

7 From the server, repeat the steps described in “To test the ELAN and CLAN network connection” on page 67. If the sanity test fails again, then verify that the network is set up correctly.

Note: In a system recovery situation that requires a Windows NT reinstallation, remove the CLAN card before installing Windows NT. When you install Windows NT, configure the only network card remaining—the ELAN card—in the server.

Troubleshooting the client-server connection

Introduction

If the client cannot connect to the server, it displays a dialog box with the message `IP address is unreachable. Connection failed.` Click OK to dismiss the dialog box, and follow the steps in this section to solve the problem.

ATTENTION

If you discover that you must change the server's CLAN or ELAN IP address, see "Changing the server IP address or site name" on page 445. You must make IP address changes in Symposium Call Center Server utilities as well as in the Network control panel.

Things to check first

1. Check that all network cables are securely attached to the client PC and server.
2. Make sure that the SMI system is configured properly. Select the system in the SMI Workbench, and choose File → System Properties. The IP address and name should match the CLAN IP address and site name, respectively, specified on the worksheet in "Server and client software installation information" on page 510.
3. From the client, try to ping the server's CLAN IP address. If you are using a dial-up connection, then establish the modem connection before pinging.

   If the ping is successful, then the network is fine between the server and the client. If the pinging is not successful, then you might be using the wrong IP address for the server, or there might be a network problem.

To check the client PC

If using a dial-up connection to the server

1 Check that the Dial-Up Networking connection profile that you are using for the SMI system to connect to the server is set up correctly. Check that the dial-up connection information is correct (IP address for the server and phone number). For instructions on creating a dial-up connection profile, refer to the *Nortel Networks Symposium Call Center Server Software Administrator's Guide*.

2 Try to connect to other PCs on the local network to ensure that you are not having a local network problem.

If connecting to the server over the LAN

1 Check that the connection information for the SMI system is correct (IP address or computer name for the server). See "Adding an SMI system" on page 159.

2 Try to connect to other PCs on the LAN to ensure that you are not having a local network problem.

To check the server

1 Check that the network card TCP/IP addresses are correct. See "Configuring TCP/IP for ELAN, CLAN, and Remote Access Service" on page 45.

Note: If you must change the server's CLAN or ELAN IP address, see "Changing the server IP address or site name" on page 445.

(The remaining steps apply only if the client is using a dial-up connection to the server)

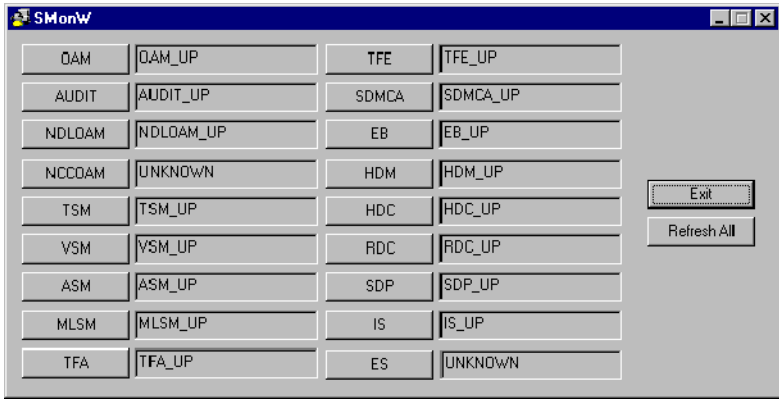
2 Check that the client PC's IP address is in the range of IP addresses defined for Remote Access Service (RAS) on the server. See "Configuring TCP/IP for ELAN, CLAN, and Remote Access Service" on page 45.

3 Check that Remote Access Service is started. See "To verify that the RAS service is set to automatic" on page 36.

Troubleshooting problems with Symposium Call Center Server services

The System Monitor window

The System Monitor Window (SMonW) displays automatically on the server PC as the software loads. This window shows the status of services. Some services take a few minutes to become active. When all services are running properly on the Symposium Call Center Server, the SMonW window shows the status of server services as UP.



ATTENTION

Only one SMonW window should ever be open at any given time. More than one open SMonW window causes services to shut down.

If a service has to be reactivated or refreshed, then click Refresh All. To refresh individual services, click the appropriate button.

Symposium Call Center Server services

All of the Symposium Call Center Server functions are Windows NT services. Each service, as described in the following table, is started automatically by the Services manager when the server starts up. If networking is enabled, then the NDLOAM appears in the UP state. NCCOAM appears in the UP state only if your server is configured as an NCC.

Server service	Shown as	Purpose
Operations, Administration and Management	OAM	System operation, administration, and management
Auditing	AUDIT	Monitor function that manages all services
Network services (Meridian 1 only)	NDLOAM	Nodal system operation, administration, and management
Network services (Meridian 1 only)	NCCOAM	Network Control Center system operation, administration, and management
Telephony Service Manager	TSM	Telephony interface between switch and server
Voice Services Manager	VSM	Interface to Meridian Mail via ACCESS VOICE processing interface
Agent Skillset Manager	ASM	Agent and skillset handling
Meridian Link Services Manager	MLSM	Allows third-party applications to interface with Symposium Call Center Server
Task Flow Access	TFA	Allows third-party access via scripting commands (Data Exchange server)
Task Flow Executor	TFE	Executes all scripts and handles all calls
Statistical Data Manager Configuration	SDMCA	Manages all of the other statistical collection services
Historical Data Manager	HDM	Manages all of the historical data collected by HDC
Historical Data Collection	HDC	Collects all of the historical data
Real Time Data Collector	RDC	Collects and generates real-time statistics for displays
Statistical Data Propagator	SDP	Distributes incoming statistical data to the appropriate service
Intrinsic Services	IS	Manages skillset intrinsic data

Server service	Shown as	Purpose
Event Server	ES	Manages events

TFE does not come up after an upgrade or conversion

If the Task Flow Executor (TFE) does not appear in the UP state after an upgrade, then you must validate all scripts to correct the problem. For more information on validating scripts, refer to the *Symposium Call Center Server Scripting Guide* for your switch type.

TSM does not come up on my NCC server

This is normal. The Network Control Center, if present, performs only network administrative functions and does not perform any call processing. The telephony services manager (TSM), therefore, is not required. The only services that should be up are

- OAM
- AUDIT
- NCCOAM
- HDM

Other services do not come up

This problem can occur if you have more than one System Monitor Window open.

Troubleshooting problems with RSM

Introduction

If your web client real-time displays do not contain data, you must check

- whether the RSM server is running
- whether the RSM server has been registered
- whether the link between the client and the server is up

To troubleshoot RSM problems

1. From the Windows Start menu, choose Programs → Command Prompt.
2. In the DOS window, type **D:** and press Enter.
3. Type **CD \Nortel\iona\Orbix_2.3c02\bin** and press Enter.
4. To make sure that the server is running, type **psit** and press Enter.

   Result: A list of active servers appears, similar to the following list. Make sure this list includes RtdMulticastServer.

```
[698: New Connection (NY,IT_daemon,*,SYSTEM,pid=119,optimised)
Active servers at node PURPLE are :
Name         Marker  Code  Comms Port  Launch  PerClient? OS-pid
-------------------------------------------------------------------
RtdMulticastServer*  cdr   tcp   1591  manual   ---       372
EventServer  *       cdr   tcp   1592  manual   ---       604
```

5 To make sure that the server is registered, type **catit RtdMulticastServer** and press Enter.

Result: Server details appear for RtdMulticastServer, similar to the following:

```
[665: New Connection (NY,IT_daemon,*,SYSTEM,pid=119,optimised)
Server details for server  : RtdMulticastServer

   Comms           : tcp
   Code            : cdr
   Activation      : shared
   Owner           : sccs
   Launch          : ;
   Invoke          : ;all;

      Marker         Launch Command
      *              -- Persistent Launch Only --
```

6 To make sure that the server is registered, type **lsit** and press Enter.

Result: Details, similar to the following, appear:

```
[78: New Connection (PURPLE,IT_daemon,*,SYSTEM,pid=119,optimised)

Root directory
    EventServer
```

7 To check the connection between the server and the client, type **pingit** and press Enter.

Result: Connection information, similar to the following, appears:.

```
[78: New Connection (NY,IT_daemon,*,SYSTEM,pid=119,optimised)
Trying to contact NY and it's running.
```

Troubleshooting other problems

Swap file usage exceeds 80%, or system is low on virtual memory

If the server has insufficient swap file space, a warning message appears, notifying you that it is low on virtual memory. You can also check swap file usage in the Performance Monitor. Swap file usage should not be consistently greater than 80 percent.

To increase swap file space to 368 Mbytes on a 1003t platform

If you have a 1003t platform, you can increase swap file space to 368 Mbytes. To do so, follow these steps:

1. Log on to Windows NT as Administrator.
2. In the Control Panel window, double-click System.
3. Click the Performance tab.
4. In the Virtual Memory section, click Change.

   The Virtual Memory dialog box opens.
5. Select the drive containing your swap file.
6. If the swap file is located on drive D, ensure that the drive has at least 578 Mbytes of free disk space. (This ensures that at least 200 Mbytes of free disk space remains after you increase the swap file size.) If it does, continue with the following step.

   If drive D does not contain 578 Mbytes of free space, select a different drive. Continue selecting drives until you find one with at least 378 Mbytes of free disk space. If you find a suitable drive, continue with the next step. (If you cannot find a drive with enough space, contact your Nortel Networks customer support.)
7. Under Paging File Size for Selected Drive, enter 368 for Initial Size, and 368 for Maximum Size.
8. Click Set, and then click OK.

   Result: You return to the System Properties property sheet.
9. Click OK.

10 Click Yes when prompted to restart the PC.

On any other platform

If you have another platform, contact your Nortel Networks customer service representative.

Failure to restore system from a full backup tape

If you receive the message “Foreign Tape is displayed in the WinNT Backup utility,” the problem can be caused be an incorrectly tensioned backup tape. Loose spots can cause the tape to skip past the tape drive heads. To ensure the tape is tensioned correctly, follow these steps:

1 Insert the backup tape into the tape drive.

2 Launch the Windows NT Backup utility.

3 From the Operations menu, choose Retention Tape.

Other documents

Introduction

For additional information related to Symposium Call Center Server, refer to “Related documents” on page 6.

For Windows information, refer to the following table:

Document name	Document number	Purpose
Windows 95 Documentation Set	Produced by and available from your local Microsoft distributor	• Windows 95 operating system troubleshooting
Windows 98 Documentation Set	Produced by and available from your local Microsoft distributor	• Windows 98 operating system troubleshooting
Windows NT Server Documentation Set	Produced by and available from your local Microsoft distributor	• Windows NT operating system troubleshooting

Part 3

Appendixes

Appendix A

Worksheets

In this appendix

Overview 504

Switch information 505

Windows NT configuration information 508

Server and client software installation information 510

Overview

Information and worksheet

A fold-out worksheet is attached inside the front cover. Make photocopies of this worksheet and use it to record information required for the software installation.

You can use the tables in this appendix to supplement the worksheet. The tables provide some additional information and tips, such as computer name and switch name restrictions. They also organize the planning information according to when it is needed during the software installation.

To use the tables, make photocopies of them.

Where to get the information

Sources of information for the worksheets include the customer's LAN, network, or system administrator, and the Symposium Call Center Server administrator.

Switch information

Introduction

Use the table appropriate to your switch type (Meridian 1 or DMS/MSL-100).

Restrictions for switch names

The following restrictions apply to switch names:

- Valid characters for switch names are A–Z, a–z, 0–9, _ (underscore), and . (period).
- Switch names must begin with an alphabetic character and cannot contain spaces.
- The last character must not be an underscore or a period.
- Switch names must not exceed 80 characters in length.

Meridian 1 switch information

During software installation, you need the information specified in the following table:

Item	Fill in the required information
Switch name	
Switch customer number	
Switch ELAN primary IP address (for example, 255.255.255.255)	
Switch ELAN secondary IP address (for example, 255.155.155.237)	

Notes:

- If you enter an incorrect value during installation, you can use the Feature Report utility (see “Feature Report” on page 453) to correct the value after installation.
- Switches with two processors require two IP addresses. Use the switch primary address for the primary CPU (core 0), and use the secondary address for the redundant CPU (core 1). For smaller switches, such as an Option 11C, you need only the primary address.

DMS/MSL-100 switch information

During software installation, you need the information specified in the following table:

Item	Fill in the required information
Switch name	
Switch customer number	
Switch IP address (for example, 255.255.255.255)	
IP addresses for routers on the ICM connection between the switch and ELAN **Note**: Record additional IP addresses on the back of the network planner worksheet.	
Network node ID	
Service ID	
Application ID	
Service version	
Business group	
Link set name	
Password	
Remote host IP address (optional)	

Notes:

- If you enter an incorrect value during installation, you can use the Feature Report utility (see “Feature Report” on page 453) to correct the value after installation.
- If an IP addressing scheme has not yet been established for the ICM connection, see your network administrator.

Windows NT configuration information

Introduction

Complete the following table to record general Windows NT information. Complete the table on the next page to record IP addresses. It is the customer's responsibility to provide unique and usable IP addresses.

General information

Required setup data	Fill in the required information
New password for Administrator account (You are instructed to provide a new password.)	For security reasons, do not record the password here. See "Changing the Administrator password" on page 29 for password guidelines.
Computer name ■ no spaces; 6 to 15 characters in length ■ letters, numbers, hyphen, and dash are allowed ■ must be unique on the network	
DNS Host Name (must be exactly the same as the Computer name, including uppercase and lowercase)	
Workgroup name	
Type of modem installed in the server	
Modem phone number for the switch (for dial-up connections only)	

ELAN and CLAN IP addresses and names

CLAN and ELAN IP addresses must be unique. Contact the customer's LAN administrator for IP addresses, subnet masks, and gateways.

Note: Nortel Networks supplied PCs are equipped with an ELAN network interface card. If you are configuring a Network Control Center server, you do not need to connect the ELAN network interface card to the ELAN cable. However, to ensure proper functionality, enter an IP address for the ELAN network interface card that is not used elsewhere in the network.

Name	IP address	Subnet mask	Gateway, description, equipment name, or comments
ELAN server			
ELAN router/ gateway (optional WAN connection)	N/A		
CLAN server			
CLAN router/ gateway (if used)			
RAS 1 (minimum 2 RAS addresses)			
RAS 2 (if applicable)			

Server and client software installation information

Required setup data	Fill in the required information
Customer name	
Company name	
Keycode and serial number. This can be on a disk; if so, indicate “on disk.” For DMS/MSL-100, the serial number is contained in the dongle.	
Switch information (See “Switch information” on page 505.)	
ELAN and CLAN IP addresses **Note**: ELAN and CLAN addresses must be unique. Nortel Networks-supplied PCs are equipped with an ELAN network interface card. If you are configuring a Network Control Center server, you do not need to connect the ELAN network interface card to the ELAN cable. However, to ensure proper functionality, enter an IP address for the ELAN network interface card that is not used elsewhere in the network.	

Required setup data	Fill in the required information
Site name. This name can consist of up to 21 characters, except the \ (backslash) character. In a multi-site network, the site name for each server must be unique. The application uses this name to identify the server in reports. **Note**: For Meridian 1 switches with the option Network Skill-based Routing feature, the NCC site name is automatically propagated to servers.	
(Networking option only) IP address of RSM server	
New password for NGenDesign account (This is a user account for Nortel Networks support.)	For security reasons, do not record the password here. See “Changing the Administrator password” on page 29 for password guidelines.
New password for NGenDist account (This is a user account for distributors to provide support.)	For security reasons, do not record the password here. See “Changing the Administrator password” on page 29 for password guidelines.
Modem phone number for the server (for dial-up connections from the client PC)	

Glossary

A

accelerator key

A key on a phoneset that an agent can use to place a call quickly. When an agent presses an accelerator key, the system places the call to the configured number associated with the key. For example, if an agent presses the Emergency key, the system places a call to the agent's supervisor.

access class

A collection of access levels that defines the actions a member of the access class can perform within the system. For example, a member of the Administrator access class might be given a collection of Read/Write access levels.

access level

A level of access or permission given to a particular user for a particular application or function. For example, a user might be given View Only access to historical reports.

ACCESS link

A communication channel between the Symposium Call Center Server and Meridian Mail.

ACCESS voice port

A Meridian Mail voice port that is controlled by the ACCESS link.

ACD call

See Automatic call distribution call.

ACD-DN

See Automatic call distribution directory number.

ACD routing table

See Automatic call distribution routing table.

acquired resource
A resource configured on the switch that is under the control of the Symposium Call Center Server. Resources must be configured with matching values on both the switch and the Symposium Call Center Server.

activated script
A script that is processing calls or is ready to process calls. Before you can activate a script, you must first validate it.

activity code
A number that an agent enters on his or her phoneset during a call. Activity codes provide a way of tracking the time agents spend on various types of incoming calls. For example, the activity code 720 might be used to track sales calls. Agents can then enter 720 on their phonesets during sales calls, and this information can be generated in an Activity Code report.

administrator
A user who is responsible for maintaining the Symposium Call Center Server.

agent
A user who is responsible for handling customer calls.

agent login ID
A unique identification number assigned to a particular agent. The agent uses this number when logging on. The agent ID is not associated with any particular phoneset.

agent to skillset assignment
A matrix that, when you run it, sets the priority of one or more agents for a skillset. Agent to skillset assignments can be scheduled.

agent to supervisor assignment
A definition that, when you run it, assigns one or more agents to specific supervisors. Agent to supervisor assignments can be scheduled.

application
1. A logical entity that represents a Symposium Call Center Server script for reporting purposes. The master script and each primary script have an associated application.The application has the same name as the script it represents. 2. A program that runs on a computer.

application program interface
A set of routines, protocols, and tools that programmers use to develop software applications. APIs simplify the development process by providing commonly used programming procedures.

associated supervisor
A supervisor who is available for an agent if the agent's reporting supervisor is unavailable. *See also* reporting supervisor.

Automatic call distribution call
A call to an ACD-DN. ACD calls are distributed to agents in an ACD group based on the ACD routing table on the switch.

Automatic call distribution directory number
DNs associated with an ACD group. Calls made to these DNs are distributed to agents belonging to the group, based on the ACD routing table on the switch.

Automatic call distribution routing table
A table configured on the switch that contains a list of ACD-DNs used to define routes for incoming calls. This ensures that incoming calls not processed by Symposium Call Center Server will be queued to ACD groups and handled by available agents.

C

call age
The amount of time a call was waiting in the system before being answered by an agent.

call destination
The site to which an outgoing network call is sent. *See also* call source.

call intrinsic

A script element that stores call-related information assigned when a call enters the Symposium Call Center Server. *See also* intrinsic, skillset intrinsic, time intrinsic, and traffic intrinsic.

call presentation class

A collection of preferences that determines how calls are presented to an agent. A call presentation class specifies whether a break time between calls is allowed, whether an agent can put DN calls on hold for incoming ACD calls, and whether an agent phoneset displays that the agent is reserved for a network call.

call priority

A numerical value assigned in a script that defines the relative importance of a call. If two calls are in the queue when an agent becomes available, and one call is queued with a higher priority than the other, the agent receives the higher priority call first. *See also* skillset priority.

call source

The site from which an incoming network call originates. *See also* call destination.

call treatment

A script element that enables you to provide handling to a call while it is waiting to be answered by a call center agent. For example, a caller can hear a recorded announcement or music while waiting for an agent.

call variable

A script variable that applies to a specific call. A call variable follows the call through the system and is passed from one script to another with the call. *See also* global variable, variable.

Calling Line Identification

This is an optional service that identifies the telephone number of the caller. This information can then be used to route the call to the appropriate agent or skillset. The CLID can also be displayed on an agent’s phoneset.

CDN

See controlled directory number.

CLAN
See Customer local area network.

CLID
See Calling Line Identification.

client
The part of Symposium Call Center Server that runs on a personal computer or workstation and relies on the server to perform some operations. *See also* server.

command
A building block used with expressions, variables, and intrinsics to create scripts. Commands perform distinct functions, such as routing a call to a specific destination, playing music to a caller, or disconnecting a caller.

controlled directory number
A special directory number that allows calls arriving at the switch to be queued when the CDN is controlled by an application such as Symposium Call Center Server. When a call arrives at this number, the switch notifies the application and waits for routing instructions, which are performed by scripts in Symposium Call Center Server.

Customer local area network
The LAN to which your corporate services and resources connect. The Symposium Call Center Server and client both connect to the CLAN. Third-party applications that interface with the server also connect to this LAN.

D

DBMS
Database Management System

deactivated script
A script that does not process any new calls. If a script is in use when it is deactivated, calls continue to be processed by the script until they are completed.

default activity code

The activity code that is assigned to a call if an agent does not enter an activity code manually, or when an agent presses the activity code button twice on his or her phoneset. Each skillset has a defined default activity code.

default skillset

The skillset to which calls are queued if they have not been queued to a skillset or a specific agent by the end of a script.

desktop user

A configured user who can log on to the Symposium Call Center Server from a client PC.

destination site

The site to which an outgoing network call is sent. *See also* source site.

DHCP

See dynamic host configuration protocol.

Dial-Up Networking

See Remote Access Services.

Dialed Number Identification Service

An optional service that allows Symposium Call Center Server to identify the phone number dialed by the incoming caller.

An agent can receive calls from customers calling in on different DNISs and, if the DNIS is displayed on the phoneset, can prepare a response according to the DNIS.

directory number

The number that identifies a phoneset on a switch. The directory number (DN) can be a local extension (local DN), a public network telephone number, or an automatic call distribution directory number (ACD-DN).

directory number call

A call that is presented to the DN key on an agent’s phoneset.

display threshold
A threshold used in real-time displays to highlight a value below or above the normal range.

DN
See directory number.

DN call
See directory number call.

DNIS
See Dialed Number Identification Service.

dynamic host configuration protocol
A protocol for dynamically assigning IP addresses to devices on a network.

dynamic link library
A library of executable functions or data that can be used by a Windows application. Typically, a DLL provides one or more particular functions and a program accesses the functions by creating either a static or dynamic link to the DLL. A DLL can be used by several applications at the same time.

E

ELAN
See embedded local area network.

embedded local area network
A dedicated Ethernet TCP/IP LAN that connects the Symposium Call Center Server and the switch.

Emergency key
A key on an agent's phoneset that, when pressed by an agent, automatically calls his or her supervisor to notify the supervisor of a problem with a caller.

event

1. An occurrence or action on the Symposium Call Center Server, such as the sending or receiving of a message, the opening or closing of an application, or the reporting of an error. Some events are for information only, while others can indicate a problem. Events are categorized by severity: information, minor, major, and critical. 2. An action generated by a script command, such as queuing a call to a skillset or playing music.

expression

A building block used in scripts to test for conditions, perform calculations, or compare values within scripts. *See also* logical expression, mathematical expression, and relational expression.

F

filter timer

The length of time after the system unsuccessfully attempts to route calls to a destination site, before that site is filtered out of a routing table.

first-level threshold

The value that represents the lowest value of the normal range for a statistic in a threshold class. The system tracks how often the value for the statistic falls outside this value.

G

global settings

Settings that apply to all skillsets or IVR ACD-DNs that are configured on your system.

global variable

A variable that contains values that can be used by any script on the system. The value of a global variable can only be changed in the Script Variable Properties sheet. It cannot be changed in a script. *See also* call variable, variable.

I

Incalls key

The key on an agent phoneset to which incoming ACD and Symposium Call Center Server calls are presented.

Interactive voice response

An application that allows telephone callers to interact with a host computer using prerecorded messages and prompts.

Interactive voice response ACD-DN

A directory number that routes a caller to a specific IVR application. An IVR ACD-DN must be acquired for non-integrated IVR systems.

Interactive voice response event

A voice port logon or logoff. An IVR event is pegged in the database when a call acquires or de-acquires a voice port.

Internet Protocol address

An identifier for a computer or device on a TCP/IP network. Networks use the TCP/IP protocol to route messages based on the IP address of the destination. For customers using NSBR, site IP addresses must be unique and correct. The format of an IP address is a 32-bit numeric address written as four values separated by periods. Each value can be 0 to 255. For example, 1.160.10.240 could be an IP address.

intrinsic

A word or phrase used in a script to gain access to system information about skillsets, agents, time, and call traffic that can then be used in formulas and decision-making statements. *See also* call intrinsic, skillset intrinsic, time intrinsic, and traffic intrinsic.

IP address

See Internet Protocol address.

IVR

See Interactive voice response.

IVR ACD-DN

See Interactive voice response ACD-DN.

IVR event

See Interactive voice response event.

IVR port
See voice port.

L

LAN
See Local area network.

Local area network
A computer network that spans a relatively small area. Most LANs connect workstations and personal computers and are confined to a single building or group of buildings.

local call
A call that originates at the local site. *See also* network call.

local skillset
A skillset that can be used at the local site only. *See also* network skillset, skillset.

logical expression
A symbol used in scripts to test for different conditions. Logical expressions are AND, OR, and NOT. *See also* expression, mathematical expression, and relational expression.

M

M1
Meridian 1 switch

Management Information Base
Each managed node maintains one or more variables (objects) that describes its state; the Management Information Base (MIB) is a data structure which describes the collection of all possible objects in a network. Symposium Call Center Server MIBs contribute to the overall network MIB by

- identifying Nortel Networks/Meridian/Symposium Call Center Server nodes within the network
- identifying significant events (SNMP traps) such as alarms reporting
- specifying formats of alarms

master script

The first script executed when a call arrives at the Symposium Call Center Server. A default master script is provided with Symposium Call Center Server, but it can be customized by an authorized user. It can be deactivated but not deleted. *See also* network script, primary script, script, and secondary script.

mathematical expression

An expression used in scripts to add, subtract, multiply, and divide values. Mathematical expressions are addition (+), subtraction (-), division (/), and multiplication (*). *See also* expression, logical expression, and relational expression.

Meridian Link Services

A communications facility that provides an interface between the switch and a third-party host application.

Meridian Mail

A Nortel Networks product that provides voice messaging and other voice and fax services.

Meridian MAX

A Nortel Networks product that provides call processing based on ACD routing.

MIB

See Management Information Base.

MLS

See Meridian Link Services.

MM

See Meridian Mail.

music route

A resource installed on the switch that provides music to callers while they wait for an agent.

N

NACD call
A call that arrives at the server from a network ACD-DN.

NCC
See Network Control Center.

network call
A call that originates at another site in the network. *See also* local call.

Network Control Center
The server on a Symposium Call Center Server system where NSBR is configured and where communication between servers is managed.

network script
The script that is executed to handle error conditions for Symposium Call Center Server calls forwarded from one site to another, for customers using NSBR. The network script is a system-defined script provided with Symposium Call Center Server, but it can be customized by an authorized user. It can be deactivated but not deleted. *See also* master script, primary script, script, and secondary script.

Network Skill-Based Routing
An optional feature with Symposium Call Center Server that provides skill-based routing to multiple networked sites.

network skillset
A skillset that is common to every site on the network. Network skillsets must be created at the Network Control Center (NCC).

night mode
A skillset state in which the server does not queue incoming calls to the skillset, and in which all queued calls are given night treatment. A skillset goes into night mode automatically when the last agent logs off, or the administrator can put it into night mode manually. *See also* out-of-service mode, transition mode.

NPA
See Number Plan Area.

NSBR
See Network Skill-Based Routing.

Number Plan Area
Area code

O

object linking and embedding
A compound document standard that enables you to create objects with one application and then link or embed them in a second application.

ODBC
See Open Database Connectivity.

OEM
Original equipment manufacturer

OLE
See object linking and embedding.

Open Database Connectivity
A Microsoft-defined database application program interface (API) standard.

out-of-service mode
A skillset state in which the skillset does not take calls. A skillset is out of service if there are no agents logged on or if the supervisor puts the skillset into out-of-service mode manually. *See also* night mode, transition mode.

out-of-service skillset
A skillset that is not taking any new calls. While a skillset is out of service, incoming calls cannot be queued to the skillset. *See also* local skillset, network skillset, and skillset.

P

PBX
See private branch exchange.

pegging
The action of incrementing statistical counters to track and report on system events.

pegging threshold
A threshold used to define a cut-off value for statistics such as short call and service level. Pegging thresholds are used in reports.

PEP
See Performance Enhancement Package.

Performance Enhancement Package
A Symposium Call Center Server supplementary software application that enhances the functionality of previously released software by improving performance, adding functionality, or correcting a problem discovered since the original release.

personal directory number
A DN on which an agent can be reached directly, usually for private calls.

phoneset
The physical device, connected to the switch, to which calls are presented. Each agent and supervisor must have a phoneset.

phoneset display
The display area on an agent's phoneset where information about incoming calls can be communicated.

Position ID
A unique identifier for a phoneset, used by the switch to route calls to the phoneset.

primary script
A script that is executed or referenced by the master script. A primary script can route calls to skillsets, or it can transfer routing control to a secondary script. *See also* master script, network script, script, and secondary script.

private branch exchange

A telephone switch, typically used by a business to service its internal telephone needs. A PBX usually offers more advanced features than are generally available on the public network.

R

RAN

recorded announcement

RAN route

See recorded announcement route.

RAS

See Remote Access Services.

recorded announcement route

A resource installed on the switch that offers a recorded announcement to callers.

relational expression

An expression used in scripts to test for different conditions. Relational expressions are less than (<), greater than (>), less than or equal to (< =), greater than or equal to (> =), and not equal to (< >). *See also* expression, logical expression, and mathematical expression.

Remote Access Services

A feature built into Windows NT and Windows 95 that enables users to log on to an NT-based LAN using a modem, X.25 connection, or WAN link. This feature is also known as Dial-Up Networking.

reporting supervisor

The supervisor who has primary responsibility for an agent. When an agent presses the Emergency key on the phoneset, the emergency call is presented to the agent's reporting supervisor. *See also* associated supervisor.

round robin routing table
A routing table that queues the first call to the first three sites in the routing table, then the second three sites, then the third three sites, and so on, until an agent is reserved at one of the sites. *See also* sequential routing table.

route
A group of trunks. Each trunk carries either incoming or outgoing calls to the switch. *See also* music route, RAN route.

routing table
A table that defines how calls are routed to the sites on the network. *See also* round robin routing table, sequential routing table.

S

sample script
A script that is installed with the Symposium Call Center Server client. Sample scripts are stored as text files in a special folder on the client. The contents of these scripts can be imported or copied into user scripts to create scripts for typical call center scenarios.

SCM
See Service Control Manager.

script
A set of instructions that relates to a particular type of call, caller, or set of conditions, such as time of day or day of week. *See also* master script, network script, primary script, and secondary script.

script variable
See variable.

second-level threshold
The value used in display thresholds that represents the highest value of the normal range for a given statistic. The system tracks how often the value for the statistic falls outside this value.

secondary script

Any script (other than a master, network, or primary script) that is referenced from a primary script or any other secondary script. There is no pegging of statistics for actions occurring during a secondary script. *See also* master script, network script, primary script, and script.

sequential routing table

A routing table method that always queues a call to the first three active sites in the routing table. *See also* round robin routing table.

server

A computer or device on a network that manages network resources. Examples of servers include file servers, print servers, network servers, and database servers. The Symposium Call Center Server is used to configure the operations of the call center. *See also* client.

service

A process that adheres to a Windows NT structure and requirements. A service provides system functionality.

Service Control Manager

A Windows NT process that manages the different services on the PC.

service level

The percentage of incoming calls answered within a configured number of seconds.

service level threshold

A parameter that defines the number of seconds within which incoming calls should be answered.

Simple Network Management Protocol

A systematic way of monitoring and managing a computer network. The SNMP model consists of four components:

- managed nodes are any device, such as hosts, routers, and printers, capable of communicating status to the outside world via an SNMP management process called an SNMP Agent

- management stations which are computers running special network management software which interact with the Agents for status.
- management information which is conveyed through exact specifications and format of status specified by the MIB
- Management Protocol or SNMP (sends messages called protocol data units (PDUs

site

1. A system using Symposium Call Center Server that can be accessed using SMI. 2. A system using Symposium Call Center Server and participating in Network Skill-Based Routing.

skillset

A group of capabilities or knowledge required to answer a specific type of call. *See also* local skillset, network skillset.

skillset intrinsic

A script element that inserts information about a skillset in a script. Skillset intrinsics return values such as skillsets, integers, and agent IDs. These values are then used in queuing commands. *See also* call intrinsic, intrinsic, time intrinsic, and traffic intrinsic.

skillset priority

An attribute of a skillset assignment that determines the order in which calls from different skillsets are presented to an agent. When an agent becomes available, calls might be waiting for several of the skillsets to which the agent belongs. The server presents the call queued for the skillset for which the agent has the highest priority.

source site

The site from which an incoming network call originates. *See also* destination site.

standby

In skillset assignments, a property that grants an agent membership in a skillset, but makes the agent inactive for that skillset.

supervisor
A user who manages a group of agents. *See also* associated supervisor, reporting supervisor.

switch
The hardware that receives incoming calls and routes them to their destination.

switch resource
A device that is configured on the switch. For example, a CDN is configured on the switch, and then is used as a resource with Symposium Call Center Server. *See also* acquired resource.

Symposium Call Center Server call
A call to a CDN that is controlled by the Symposium Call Center Server. The call is presented to the Incalls key on an agent's phoneset.

system-defined scripts
The Master_Script and the Network_Script (if NSBR is enabled). These scripts can be customized or deactivated by a user, but cannot be deleted. These scripts are the first scripts executed for every local or network call arriving at the call center.

T

target site
See destination site.

TCP/IP
See Transmission Control Protocol/Internet Protocol.

telephony
The science of translating sound into electrical signals, transmitting them, and then converting them back to sound. The term is used frequently to refer to computer hardware and software that perform functions traditionally performed by telephone equipment.

threshold
A value for a statistic at which system handling of the statistic changes.

threshold class

A set of options that specifies how statistics are treated in reports and real-time displays. *See also* display threshold, pegging threshold.

time intrinsic

A script element that stores information about system time, including time of day, day of week, and week of year. *See also* call intrinsic, intrinsic, skillset intrinsic, and traffic intrinsic.

Token Ring

A PC network protocol developed by IBM. A Token Ring network is a type of computer network in which all the computers are arranged schematically in a circle.

traffic intrinsic

An intrinsic that inserts information about system-level traffic in a script. *See also* call intrinsic, intrinsic, skillset intrinsic, and time intrinsic.

transition mode

A skillset state in which the server presents already queued calls to a skillset. New calls queued to the skillset are given out-of-service treatment. *See also* night mode, out-of-service mode.

Transmission Control Protocol/Internet Protocol

The communication protocol used to connect devices on the Internet. TCP/IP is the standard protocol for transmitting data over networks.

treatment

See call treatment.

trunk

A communications link between a PBX and the public central office, or between PBXs. Various trunk types provide services such as Direct Inward Dialing (DID trunks), ISDN, and Central Office connectivity.

U

user-created script

A script that is created by an authorized user on the Symposium Call Center Server system. Primary and secondary scripts are user-created scripts.

user-defined script

A script that is modified by an authorized user on the Symposium Call Center Server system.

utility

A program that performs a specific task, usually related to managing system resources. Operating systems contain a number of utilities for managing disk drives, printers, and other devices.

V

validation

The process of checking a script to ensure that all the syntax and semantics are correct. A script must be validated before it can be activated.

variable

A placeholder for values calculated within a script, such as CLID. Variables are defined in the Script Variable Properties sheet and can be used in multiple scripts to determine treatment and routing of calls entering the Symposium Call Center Server. *See also* call variable, global variable.

voice port

A connection from a telephony port on the switch to a port on the IVR system.

W

WAN

See Wide area network.

Wide area network

A computer network that spans a relatively large geographical area. Typically, a WAN consists of two or more local area networks (LANs). The largest WAN in existence is the Internet.

workload scenarios

Sets of configuration values defined for typical patterns of system operations. Five typical workload scenarios (entry, small, medium, large, and upper end) are used in the Capacity Assessment Tool for capacity analysis for the Symposium Call Center Server.

Index

Numerics

1000t
  performing a consistency check on 329–330
  performing a RAID backup on 337–338
  rebuilding the RAID drives on 416–418
  recovering an entire system 419–420, 421–423
  restoring a RAID backup 410–415
  splitting the RAID drives on 331–336
1001t
  performing a consistency check on 329–330
  performing a RAID backup on 337–338
  rebuilding the RAID drives on 416–418
  recovering an entire system 419–420, 421–423
  restoring a RAID backup 410–415
  splitting the RAID drives on 331–336
1003t
  formatting the RAID drives on 348–350
  performing a consistency check on 341
  performing a RAID backup on 346–347
  rebuilding RAID drives on 428
  recovering an entire system 430–431
  restoring a RAID backup 409–427
  splitting the RAID drives on 342–345
4 mm DAT tape drive 315
40593 event code 294
701t
  performing a consistency check on 329–330
  performing a RAID backup on 337–338
  rebuilding the RAID drives on 416–418
  recovering an entire system 419–420, 421–423
  restoring a RAID backup 410–415
  splitting the RAID drives on 331–336
702t
  performing a consistency check on 329–330
  performing a RAID backup on 337–338
  rebuilding the RAID drives on 416–418
  recovering an entire system 419–420, 421–423
  restoring a RAID backup 410–415
  splitting the RAID drives on 331–336

A

adding
  connection profile 111
  Dial-Up Networking connection profile 111–112
Administrative Tools, Windows NT 278
Administrator account 285
  changing password for 286
Administrator password, changing Windows NT 29–31
ASM service 494
AUDIT service 494
automatic
  setting RAS service to 36

B

backup logs 324
Backup Scheduler 318
backup status 324
Backup Status window 324
backup tapes 314
  rotating 314
Backup tool, Windows NT 278
backup types 311
backups
  and daily maintenance 314
  database 312
  RAID 313
  scheduling 319–323
  stopping 325

C

cancelling backups 325
changing
  Administrator password 286
  computer name 40, 440
  date 37
  NGenDesign password 287
  NGenDist password 287
  NGenSys password 288–289
  passwords 285–291
  pcAnywhere passwords 290–291
  scheduled backups 325
  size of event log 298–300
  switch type 143
  time 37
  time zone 37
  Windows NT Administrator password 29–31
  workgroup name 40
channels, nicomsetup 450
checking
  available memory 180
  drive letter assignments 384
CLAN
  configuring TCP/IP 48
  isolating 68
  ping 67–68
  resolving a failed ping test 489–490
  testing network connection 67
client PC
  minimum hardware 133
  software platforms 134
client software
  installing from distribution CD 142–153
  installing over the network 154–158
  installing PEPs 154
  platforms 134
  uninstalling 271
client-server connection
  troubleshooting 491–492
computer name
  changing 40, 440
  synchronizing 440
Computer Name Sync 440
configuration mode, at server install 87, 204, 227, 240
configuring
  CLAN TCP/IP 48
  DHCP 50
  Dial-Up Networking connection profile 111–112
  ELAN TCP/IP 45
  event viewer 39
  NMS 307
  pcAnywhere 95, 100–112
  RAS 36, 53
  RAS modem 57
  SNMP 303–307
  swap file 36
  Windows NT 23–69
connection profile
  adding 111
  configuring Dial-Up Networking 111–112
consistency check
  on a 1000t 329–330
  on a 1001t 329–330
  on a 1003t 341
  on a 701t 329–330
  on a 702t 329–330
converting
  server pre-conversion process 189
  server software 168, 211
Critical event severity level 297
customer-supplied equipment 16, 133

D

DAC960 Administration utility 410
DAC960 Monitor utility 410
dacadm.exe utility 410
dacmon.exe utility 410
daily maintenance and backups 314
data checklist 16, 133
Database 451
database
  restoring 451
database backups 312
database events 301
Database Restore utility 451
database structure 168
database, restoring 361–364

date, changing 37
date, viewing system 282
daylight savings time 281
default user accounts 285
deleting
  scheduled backups 325
deleting temporary files 140
Description box 323
Device Name box 321
DHCP client PCs, configuring 50
Diagnostic tools, Windows NT 278
dial-up connection 159
Dial-Up Networking 159
Dial-Up Networking connection profile, creating 111–112
Disk Administrator utility 278
disk space, checking 187
DMI
  installing 75, 194
DMI View 452
DMS switch configuration dialog box 82, 223, 236
DNS, configuring 50
dongle 74
drive letter assignments, checking 384
Dynamic Host Control Protocol. *See* DHCP

E

ELAN
  isolating 68
  NIC, configuring TCP/IP 45
  ping 67–68
  resolving a failed ping test 489–490
  testing network connection 67
emergency repair disk
  creating 208, 229
  updating 65–66
ES service 495
event code 40593 294
Event logs
  changing size of 298–300
  default size 299
event viewer settings 39
Event Viewer, Windows NT 278, 301–302
events 296

F

Feature Report utility 453
  overview 453
formatting optional multiple drives 63–64

G

grouping SMI systems 161

H

hard drives, formatting multiple 63–64
hardware, client PC 133
HDC service 494
HDM service 494
head-cleaning kit 315

I

Information event severity level 296
installation problems 484–488
installing
  client software from distribution CD 142–153
  client software over the network 154–158
  DMI 75, 194
  MAS server software 77
  PEPs 116–121, 154, 407–408
  RAS 33
  SDK 163
  server software 75–89
  Service Update packs 116–121, 407–408
  SNMP 33
  Windows NT Service Pack 6a 193
IP address
  master list 509
IS service 494
isolation of CLAN and ELAN 68

K

Keycode, entering 80, 198

L

logging in to Windows NT 28

M

M1 switch options dialog box 82, 223, 236
maintenance
  server software 167
  server utilities 437
Major event severity level 297
MAS debug events 301
MAS server software, installing 77
MAT and client software 136
Maximum Log Size box 300
Maximum wait Interval box 322
memory, checking available 180
Meridian 1 checks, Windows NT 26
Microsoft Internet Information Server, removing 194
Migration utility 458
Minor event severity level 297
MLSM service 494
modem, configuring for RAS 57
MS-DOS 6.20 369

N

name 440
NCCOAM service 494
NDLOAM service 494
NetRAID Assistant utility 426
Network Adapters Information 464
network connection 67–68
  troubleshooting problems with 489–490
Network Management System. *See* NMS
NGenDesign account 285
  changing password for 287
NGenDesign password 90–92
NGenDist account 285
  changing password for 287
NGenDist passwords 90–92
NGenSys account 285
  changing password for 288–289
NGenSys password 91
nicomsetup utility 450
NMS, configuring 307

O

OAM service 494

P

paging file 36, 182
passwords
  changing NGenDist and NGenDesign 90–92
  changing NGenSys 91
  changing Windows NT administrator 29–31
  guidelines for 284
  maintaining 285–291
pcAnywhere
  changing caller passwords 109
  configuring 95, 100–112
  reinstalling during conversion 97
  uninstalling during conversion 185, 218
pcAnywhere passwords, changing 290–291
PEPs
  installing 116–121, 407–408
  installing on server and client 154
  listing 452
Performance Monitor 278
ping
  resolving a failed test 489–490
  testing network connection 67–68
Platform Recovery disk 216, 231, 312
  creating 181
Platform recovery disk, recovering with 365–408
ports, nicomsetup 450
PPP connection 159
preconversion 188

R

RAID backups 313
RAID drives
  rebuilding 428
RAID systems
  recovering 409–427
RAS
  configuring TCP/IP for 53
  setting to automatic 36
  verifying installation of 33
RAS. See Remote Access Service.
RDC service 494
recovering 355–431
  RAID systems 409–427
recovering an entire system 419–431
recovery
  with Platform Recovery disk 365–408
registry maintenance 459
reinstalling
  pcAnywhere 97
  server software 231
related documents 6
remote login 290
reports and PPP connections 159
requirements
  conversion 170, 213
  installation, customer-supplied 16, 133
  installation, software 18, 135
restarting server 279–280
restoring
  data 355–431
  database backups 361–364
  RAID backups 409–427
restoring the database 451

S

scheduled backups
  changing 325
  deleting 325
scheduling
  backups 319–323
scripts validation 87, 204, 227, 240
SDK
  installing 163
  uninstalling 138
SDMCA service 494
SDP service 494
security 283–294
security auditing 294
security keylock device 74
server
  restarting 279–280
  shutting down 279–280
  user accounts on 285
Server Manager 278
server software
  configuration mode 87, 204, 227, 240
  converting 168, 211
  entering the keycode 80, 198
  installing 75–89
  installing PEPs 154
  maintenance 167, 437
  reinstalling 231
  uninstalling 242
  upgrading Windows NT 189
Service Pack 6a, installing 193, 380
Service Pack level, verifying 32
Service Update packs, installing 116–121, 407–408
services 494
  troubleshooting problems with 493–495
setting up the server
  configuring Windows NT 11, 115
  installing server software 11, 115
  preparing for setup 11, 115
severity 296
Shutdown utility 460
shutdown, improper 279
shutting down server 279–280
Simple Network Management Protocol. *See* SNMP
size of event log, changing 298–300
SMI. See System Management Interface.
SMonW 493
SNMP 297
  configuring 303–307
  verifying installation of 33
software configuration 27

Software Development Kit. *See* SDK
software, server maintenance 167
standard reports 168
Start box 322
startup utility 462
status
  of backup 324
stopping backups 325
suspicious activity 294
swap file 36
  moving 182
  usage 498
switch
  DMS configuration dialog box 82, 223, 236
  M1 options dialog box 82, 223, 236
switch type, changing 143
Sybase Open Client and client software 137
Symposium Call Center Server
  components 4
  connecting to from SMI 162
  description 4
synchronizing times 281–282
synchronizing, computer name 440
System Information utility 463
System Management Interface
  adding a system 159
  logging on for first time 162
System Monitor window 493
system recovery 360–431

T

Tandberg MLR1 QIC tape drive 315
tape drives 315
tape rotation 314
TCP/IP
  configuring CLAN NIC 48
  configuring ELAN NIC 45
  configuring RAS 53
  saving settings 56
  testing ELAN and CLAN connections 67
temp directory, checking 140
temporary files, deleting 140
testing the network connection 67–68
TFA service 494
TFE service 494
time synchronization 281–282
time zone, changing 37
time, changing 37
time, viewing system 282
troubleshooting
  client-server connection 491–492
  installation problems 484–488
  network connection problems 489–490
  problems with services 493–495
  related documents 500
TSM service 494

U

uninstalling
  pcAnywhere during conversion 185, 218
  server software 242
  Software Development Kit 138
updating emergency repair disk 65–66
upgrading
  Windows NT 189
user accounts on server 285
User Manager 278
User Profile Editor 278
utilities
  Computer Name Sync 440
  Database Restore 451
  DMI View 452
  Feature Report 453
  migration 458
  Network Adapters Information 464
  nicomsetup 450
  registry maintenance 459
  Shutdown 460
  startup 462
  System Information 463

V

validation window 80
validation, scripts 87, 204, 227, 240
video adapter, checking 186
video drivers, changing 206
Video mode 102
video mode, setting 102
viewing
  date, time, and time zone 282
  time, date, and time zone 282
virtual CD 154
  creating 154
virtual memory 36, 182
  insufficient 498
VSM service 494

W

Windows NT
  changing Administrator password 29–31
  computer name, changing 40
  configuring 23–69
  date, changing 37
  logging in 28
  Meridian 1 checks 26
  time zone, changing 37
  time, changing 37
  upgrading during server conversion 189
  workgroup name, changing 40
Windows NT Administrative Tools 278
Windows NT Diagnostics 278
Windows NT Event Viewer 278, 301–302
Windows NT Service Pack 6a, installing 32, 193
WINS, configuring 50
workgroup name, changing 40

Reader Response Form

Nortel Networks Symposium Call Center Server
Software Installation and Maintenance Guide
Product release 4.0
P0918383

Tell us about yourself:

Name: _____

Company: _____

Address: _____

_____

Occupation: _____ **Phone:** _____

1. What is your level of experience with this product?

   ☐ New user ☐ Intermediate ☐ Experienced ☐ Programmer

2. How do you use this book?

   ☐ Learning ☐ Procedural ☐ Reference ☐ Problem solving

3. Did this book meet your needs?

   ☐ Yes ☐ No

   If you answered No to this question, please answer the following questions.

4. What chapters, sections, or procedures did you find hard to understand?

   _____

   _____

   _____

5. What information (if any) was missing from this book?

   _____

   _____

   _____

6. How could we improve this book?

   _____

   _____

   _____

Please return your comments by fax to (416) 597-7104, or mail your comments to Toronto Information Products, Nortel Networks, 522 University Avenue, 14th Floor, Toronto, ON, Canada, M5G 1W7.

Reader Response Form

Reader Response Form

Nortel Networks Symposium Call Center Server

Software Installation and Maintenance Guide

Toronto Information Products
Nortel Networks
522 University Avenue, 14th Floor
Toronto, Ontario, Canada
M5G 1W7

Copyright © 2000 Nortel Networks, All Rights Reserved

Information is subject to change without notice. Nortel Networks reserves the right to make changes in design or components as progress in engineering and manufacturing may warrant.

The process of transmitting data and call messaging between the Meridian 1 and Nortel Networks Symposium Call Center Server is proprietary to Nortel Networks. Any other use of the data and the transmission process is a violation of the user license unless specifically authorized in writing by Nortel Networks prior to such use. Violations of the license by alternative usage of any portion of this process or the related hardware constitutes grounds for an immediate termination of the license and Nortel Networks reserves the right to seek all allowable remedies for such breach.

*Nortel Networks, the Nortel Networks logo, the Globemark, and Unified Networks, DMS, IVR, Meridian 1, Meridian Mail, MSL-100, and Symposium are trademarks of Nortel Networks.

MICROSOFT, MS-DOS, POWERPOINT, WINDOWS, and WINDOWS NT are trademarks of Microsoft Corporation.
CRYSTAL REPORTS is a trademark of Seagate Software, Inc.
PCANYWHERE is a trademark of Symantec Corporation.
SYBASE is a trademark of Sybase Inc.
TANDBERG is a trademark of Tandberg A/S.

Product release:	4.0
Document release:	Standard 1.0
Date:	November 2000

Printed in the United States of America